

**A study of Market Perception for select Indian
Automobile Components in Indonesia, Thailand
& Vietnam markets (Period 2009-2012)**

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**In Marketing Management
Under the Board of Management Studies**

**Submitted By
Santosh Rajaram Wagh**

**Under the guidance of
Dr. Ashok Vasant Kulkarni**

October, 2016

C E R T I F I C A T E

This is to certify that the thesis entitled “**A Study of Market Perception for select Indian Automobile Components in Indonesia, Thailand & Vietnam Markets (Period 2009-2012)**” which is being submitted herewith for the award of the Degree of Vidyavachaspati (Ph.D) in faculty of Management of Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by **Wagh Santosh Rajaram** under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any Degree or similar title of this or any other University or examining body upon him.

DR. ASHOK VASNT KULKARNI

M.Com. M. Phil. PhD

PRINCIPAL

Arts, Commerce and Science College

Mandavgan, Pharata, Tal- Shirur, Dist-Pune

Place:

Date:

DECLARATION

I hereby declare that the thesis entitled “**A study of Market Perception for select Indian Automobile Components in Indonesia, Thailand & Vietnam Markets (Period 2009-2012)**” completed and written by me has not previously formed the basis for the award of any degree or other similar title upon me of this or any other Vidyapeeth or examining body.

Santosh Rajaram Wagh

(Research Student)

Place:

Date:

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TABLE OF CONTENTS

Certificate.....	i
Acknowledgement.....	ii
Declaration.....	iii
Table of Contents.....	iv
List of Tables	ix
List of Graphs	xii
List of Figure.....	xv
List of Appendices	xv
List of Abbreviations.....	xvi
Abstract.....	xix
1. INTRODUCTION	1-19
1.1 Indian Automobile industry.....	2
1.1.1 Production of Automobiles Vehicles.....	4
1.2 Indian Auto Component Industry	7
1.2.1 Auto Components Supply to OEM's.....	8
1.2.2 Imports - Auto Components to India.....	9
1.2.3 Exports of Auto Components from India.....	10
1.2.4 Auto components family & Component selection.....	11
1.3 Indian Tyre Industry	13
1.3.1 Exports by Indian Tyre Industry	14
1.4 Indian Wheel Industry.....	15
1.4.1 Wheel manufacturers in India.....	16
1.5 South East Asian Countries.....	18
2. INTRODUCTION TO ECONOMIES OF INDIA, THAILAND, INDONESIA AND VIETNAM	20-65
2.1 India – A Vibrant Economy.....	20
2.1.1 Economic Overview.....	20
2.1.2 India's economic ranking – Doing business.....	28
2.1.3 Current status of India economy.....	28
2.2 The Kingdom of Thailand.....	30
2.2.1 Economic overview.....	30
2.2.2 Doing business.....	31
2.2.3 Industrial policies.....	33
2.2.4 Automobile industry and producers in Thailand.....	37
2.2.5 Exhibitions related to automobile- Truck and Bus.....	42

2.3	Indonesia	44
	2.3.1 Economic overview.....	44
	2.3.2 Doing business.....	46
	2.3.3 Industrial policies.....	47
	2.3.4 Automobile industry and producers in Thailand.....	50
	2.3.5 Exhibitions related to automobile- Truck and Bus.....	52
2.4	Vietnam.....	54
	2.4.1 Economic overview.....	54
	2.4.2 Doing business.....	56
	2.4.3 Industrial policies.....	58
	2.4.4 Automobile industry and producers in Vietnam.....	60
	2.4.5 Exhibitions related to automobile- Truck and Bus.....	63
3. REVIEW OF LITERATURE PART-I		66-79
INDIA- THE FOREIGN TRADE POLICY 2015-2020 AND FREE TRADE AGREEMENTS (FTA)		
3.1	DGFT (Directorate General of Foreign Trade)	67
3.2	Simplification & Merger of Rewards Schemes.....	67
	3.2.1 Merchandise Exports from India Scheme.....	68
	3.2.2 Service Exports from India Scheme.....	68
	3.2.3 Incentives to be available for Special Economic Zones.....	68
	3.2.4 Status Holders.....	69
3.3	Boost to “MAKE IN INDIA”.....	70
3.4	Free Trade Agreements.....	71
	3.4.1 ASEAN-India Free Trade Agreement (AIFTA).....	72
	3.4.2 Impact of FTA on Indonesia.....	73
	3.4.3 Impact of FTA on Thailand.....	75
	3.4.4 Impact of FTA on Vietnam.....	75
3.5	FTA – India –Thailand Case Study.....	76
3.6	Potential Negative Effects of FTAs.....	77
4. REVIEW OF LITERATURE PART-II.....		80-99
4.1	Agencies & Reports (Government & Private)	82
	4.1.1 Asian Development Outlook.....	82
	4.1.2 Doing Business (A World Bank Group)	83
	4.1.3 World Automotive Industry.....	84
	4.1.4 Samruddhi data information services.....	87
	4.1.5 The Automotive Component Manufacturers Association of India.....	87
	4.1.6 Society of Indian Automobile Manufacturers (SIAM)	88
4.2	Paper and Journal referred.....	88
	4.2.1 ASEAN Automotive Market and Industrial Policies.....	88
	4.2.2 India Asean Trade.....	89
	4.2.3 Indian Automotive Market.....	93

4.3	PhD Thesis referred.....	95
4.4	Books Referred.....	98
4.5	Identifying Literature Gap & Summery of review	99
5. RESEARCH METHODOLOGY		100-110
5.1	Introduction.....	100
5.2	Statement of Problem.....	100
5.3	Objectives of the study.....	102
5.4	Scope and limitations.....	102
5.5	Hypothesis of the study.....	103
5.6	Pilot Study.....	103
5.7	Research Design.....	104
	5.7.1 Sampling design.....	105
	5.7.2 Observational Design.....	106
	5.7.3 Statistical Design.....	109
5.8	Period of Study.....	110
6. PRESENTATION & ANALYSIS OF DATA AND HYPOTHESIS TESTING.....		111-190
	PART –I Presentation analysis of data.....	111-174
6.1	Presentation and Analysis of Thailand Market.....	112
	6.1.1 Total Spare/Retail Market Demand.....	112
	6.1.2 Top three Vehicle Manufacturers in Thailand.....	122
	6.1.3 Ranking of different characteristics on a scale on 1-10.....	123
	6.1.4 Market Perception regarding manufacturing country in Thailand Market	125
	6.1.5 Import Duty Structure.....	134
	6.1.6 Export and Import between Thailand and India	134
6.2	Presentation and Analysis of Indonesia Market.....	136
	6.2.1 Total Spare/Retail Market Demand.....	136
	6.2.2 Top three Vehicle Manufacturer in Indonesia Market.....	146
	6.2.3 Ranking of different characteristics on a scale on 1-10.....	147
	6.2.4 Market Perception regarding manufacturing country in Indonesia	149
	6.2.5 Import Duty Structure for Commercial Tyre and Wheels....	155
	6.2.6 Export and Imports between Indonesia and India.....	156
6.3	Presentation and Analysis of Vietnam’s Market	157
	6.3.1. Total Spare/Retail Market Demand	157
	6.3.2. Top three Vehicle Manufacturer in Vietnam Market	165

6.3.3. Ranking of different characteristics on a scale on 1-10.....	166
6.3.4. Market Perception regarding manufacturing country in Vietnam Market.....	168
6.3.5. Import Duty Structure for Commercial Tyre and Wheels...	174
6.3.6. Export and Imports between Vietnam and India.....	174
 PART –II Hypothesis testing	176-190
6.4 Testing Hypothesis 1.....	176
6.5 Testing Hypothesis 2.....	180
6.6. Testing Hypothesis 3.....	185
 7. FINDINGS & OBSERVATIONS, SUGGESTIONS & CONCLUSION....	191-219
7.1 Findings and Observation.....	191
7.1.1. India Market	191
7.1.1.1 Indian Automobile Industry.....	192
7.1.2. Thailand Market.....	193
7.1.2.1 Automobile Industry in Thailand Market	194
7.1.2.2 Findings for commercial Tyre	194
7.1.2.3 Findings for commercial Wheel Rim	196
7.1.3. Indonesia Market.....	197
7.1.3.1 Automobile Industry in Indonesia Market	198
7.1.3.2 Findings for commercial Tyre	199
7.1.3.3 Findings for commercial Wheel Rim	200
7.1.4. Vietnam Market.....	202
7.1.4.1 Automobile Industry in Vietnam Market	202
7.1.4.2 Findings for commercial Tyre	203
7.1.4.3 Findings for commercial Wheel Rim	204
7.2 Suggestion and Recommendations.....	205
7.2.1. Suggestions for Commercial Tyre Industry.....	206
7.2.2. Suggestions for Commercial Wheel Rim Industry.....	208
7.2.3. Suggestions for Government of India.....	211
7.3 Conclusion.....	212
7.3.1 India – ASEAN Countries.....	213
7.3.2 Automotive Component	214
7.4 Model for Marketing Strategies for Indian Auto – Component manufacturers.....	216
7.5 Impact of Study	219
7.6 Future Scope for further study.....	219

Bibliography	220-225
Appendices	226-239
Appendix A	226
Appendix B	235
Appendix C	238

LIST OF TABLES

Table No.	Title of table	Page No.
Table 1- 1	Manufacturing base of Indian Vehicle Manufactures	3
Table 1- 2	Indian Auto-component industry at a glance	7
Table 1- 3	Auto Components Supply to OEMs	8
Table 1- 4	Product Range –Auto Component Industry	9
Table 1- 5	Imports of Auto components to India	10
Table 1- 6	Exports of Auto Components from India	11
Table 1- 7	India’s top 20 component exports in terms of product family	12
Table 1- 8	Tyre Production – Avg. per Month	14
Table 1- 9	Production capacities of Wheel manufacturers	17
Table 1-10	Vehicle Production 2010	18
Table 2-1	Indian GDP Annual Growth Rate	21
Table 2-2	India’s Exports Composition (2013-14)	23
Table 2-3	India's Export Destinations (2013-14)	23
Table 2-4	Total Export – Top 10 countries (2013-14)	24
Table 2-5	India’s Import Composition (2013-2014)	25
Table 2-6	India’s Import Sources (2013-14)	26
Table 2-7	Total Import- 10 Countries (2013-14)	26
Table 2-8	Balance of Trade (Import-Export)	27
Table 2-9	Doing business 2016 ranking	28
Table 2-10	Business Parameters Thailand	32
Table 2-11	Production statistics Thailand Market	38
Table 2-12	Truck Sales Thailand Market	38
Table 2-13	Business parameters Indonesia	46
Table 2-14	Vehicle Production statistics Indonesia Market	51
Table 2-15	Business Parameters Vietnam	57
Table 2-16	Vietnam Total Vehicle Sales- Production Statistics	61
Table 3-1	Criteria for obtaining export house status	69

Table 3-2	India's merchandise trade with ASEAN	73
Table 3-3	India's trade with Thailand	77
Table 4-1	ASEAN Member's Imports and Exports	90
Table 5-1	Sampling size Thailand Market	105
Table 5-2	Sampling size Indonesia Market	106
Table 5-3	Sampling size Vietnam Market	106
Table 5-4	Types of respondent	106
Table 5-5	Types of questions used in questionnaire	108
Table 5-6	Questionnaire and hypothesis mapping	109
Table 6-1	Commercial Tyre Spare Market Demand in Thailand	113
Table 6-2	Commercial Wheel Rim Spare Market Demand in Thailand	114
Table 6-3	Commercial Tyre Spare Market Supply in Thailand	115
Table 6-4	Commercial Wheel Rim Spare Market Supply in Thailand	116
Table 6-5	Import Duty Structure for Commercial Tyre and Wheels in Thailand market	134
Table 6-6	Export and Import to Thailand from India	135
Table 6-7	Commercial Tyre Spare Market Demand in Indonesia	136
Table 6-8	Commercial wheels Spare Market Demand in Indonesia	137
Table 6-9	Commercial Tyre Spare Market Supply in Indonesia	138
Table 6-10	Commercial wheels Spare Market Supply in Indonesia	139
Table 6-11	Presence of Radial and Bias commercial tyre in Indonesia market	141
Table 6-12	Import Duty Structure for Commercial Tyre and Wheels in Indonesia market	155
Table 6-13	Export and Import to Indonesia from India	156
Table 6-14	Commercial Tyre Spare Market Demand in Vietnam	157
Table 6-15	Commercial wheels Spare Market Demand in Vietnam	158
Table 6-16	Commercial tyre Spare Market Demand in Vietnam	159
Table 6-17	Commercial Wheel Rim Spare Market Supply in Vietnam	160
Table 6-18	Import Duty Structure for Commercial Tyre and Wheels in Vietnam market	174
Table 6-19	Export and Import to Vietnam from India	174

Table 6-20	Pearson Correlation statistics for Hypothesis H1T1	177
Table 6-21	Pearson Correlation statistics for Hypothesis H1T2	178
Table 6-22	Pearson Correlation statistics for Hypothesis H1I1	178
Table 6-23	Pearson Correlation statistics for Hypothesis H1I2	179
Table 6-24	Pearson Correlation statistics for Hypothesis H1V1	179
Table 6-25	Pearson Correlation statistics for Hypothesis H1V2	180
Table 6-26	Paired T test statistics for Hypothesis H2T1	181
Table 6-27	Paired T test statistics for Hypothesis H2T2	182
Table 6-28	Paired T test statistics for Hypothesis H2I1	183
Table 6-29	Paired T test statistics for Hypothesis H2I2	183
Table 6-30	Paired T test statistics for Hypothesis H2V1	184
Table 6-31	Paired T test statistics for Hypothesis H2V2	185
Table 6-32	Paired T test statistics for Hypothesis H3T1	186
Table 6-33	Paired T test statistics for Hypothesis H3T2	187
Table 6-34	Paired T test statistics for Hypothesis H3I1	187
Table 6-35	Paired T test statistics for Hypothesis H3I2	188
Table 6-36	Paired T test statistics for Hypothesis H3V1	188
Table 6-37	Paired T test statistics for Hypothesis H3V2	189
Table 6-38	Summary of hypothesis testing	190
Table 7-1	Indian Merchandises trade with ASEAN countries	213

LIST OF GRAPHS

Graph No.	Graph Name	Page No.
Graph 1-1	Passenger Vehicle Production	4
Graph 1-2	Commercial Vehicle Production	5
Graph 1-3	Other Vehicles Production	6
Graph 4-1	Motor vehicle production	86
Graph 6-1	Commercial Tyre Spare Market Supply in Thailand	115
Graph 6-2	Commercial Wheel Rim Spare Market Supply in Thailand	116
Graph 6-3	Presence of Radial and Bias commercial tyre in Thailand market	117
Graph 6-4	Presence of Tube type and Tubeless commercial tyre in Thailand market	118
Graph 6-5	Presence of Tube type and Tubeless commercial wheel rims in Thailand market	119
Graph 6-6	Presence of commercial Tyre sizes in Thailand market	120
Graph 6-7	Presence of Commercial Wheel sizes in Thailand market	121
Graph 6-8	Top 3 Commercial Tyres brands in Thailand market	121
Graph 6-9	Top 3 Commercial Wheels brands in Thailand market	122
Graph 6-10	Top 3 Vehicle manufacturers in Thailand Market	123
Graph 6-11	Ranking of Consumer priorities while purchasing Commercial Tyre in Thailand Market	124
Graph 6-12	Ranking of Consumer priorities while purchasing Commercial Wheel Rims in Thailand Market	125
Graph 6-13	Market Perception of China Tyre in Thailand Market	126
Graph 6-14	Market Perception of India Tyre in Thailand Market	127
Graph 6-15	Market Perception for domestically produced foreign brand Tyre in Thailand Market	128
Graph 6-16	Market Perception for domestically produced local brand Tyres in Thailand Market	129
Graph 6-17	Market Perception for tyres from other countries in Thailand Market	130

Graph 6-18	Market Perception for commercial wheels from China in Thailand Market	131
Graph 6-19	Market Perception for commercial wheels from India in Thailand Market	133
Graph 6-20	Market Perception for commercial wheels from other countries in Thailand Market	134
Graph 6-21	Commercial Tyre Spare Market Supply in Indonesia	138
Graph 6-22	Commercial wheels Spare Market Supply in Indonesia	140
Graph 6-23	Presence of Radial and Bias commercial tyre in Indonesia market	141
Graph 6-24	Presence of Tube type and Tubeless commercial tyre in Indonesia market	142
Graph 6-25	Presence of Tube type and Tubeless commercial wheel rims in Indonesia market	143
Graph 6-26	Presence of Commercial tyre sizes in Indonesia market	144
Graph 6-27	Presence of Commercial wheels sizes in Indonesia market	144
Graph 6-28	Top 3 Commercial tyres brands in Indonesia market	145
Graph 6-29	Top 3 Commercial wheels brands in Indonesia market	146
Graph 6-30	Top 3 vehicle manufacturers in Indonesia market	146
Graph 6-31	Ranking of Consumer priorities while purchasing Commercial Tyre in Indonesia market	147
Graph 6-32	Ranking of Consumer priorities while purchasing Commercial wheel rims in Indonesia market	148
Graph 6-33	Market Perception of China Tyre Indonesia market	149
Graph 6-34	Market Perception of India in Indonesia market	150
Graph 6-35	Market Perception for domestically produced foreign brand Tyre Indonesia market	151
Graph 6-36	Market Perception for Commercial Wheels from China in Indonesia market	152
Graph 6-37	Market Perception for Commercial Wheels from India in Indonesia market	153
Graph 6-38	Market Perception for Commercial Wheels from Other countries in Indonesia market	154

Graph 6-39	Commercial tyres Spare Market Supply in Vietnam	159
Graph 6-40	Commercial wheels Spare Market Supply in Vietnam	160
Graph 6-41	Presence of Radial and Bias commercial tyre in Vietnam	161
Graph 6-42	Presence of Tube type and Tubeless commercial tyre in Vietnam market	162
Graph 6-43	Presence of Tube type and Tubeless commercial wheel rims in Vietnam market	162
Graph 6-44	Commercial tyre sizes in Vietnam market	163
Graph 6-45	Commercial wheel sizes in Vietnam market	164
Graph 6-46	Top 3 Commercial tyre brands in Vietnam market	164
Graph 6-47	Top 3 Commercial wheel brands in Vietnam market	165
Graph 6-48	Top 3 vehicle brands in Vietnam market	166
Graph 6-49	Ranking of Consumer priorities while purchasing Commercial Tyre in Vietnam market	167
Graph 6-50	Ranking of Consumer priorities while purchasing Commercial wheels in Vietnam market	167
Graph 6-51	Market Perception of China Tyre in Vietnam market	168
Graph 6-52	Market Perception of India Tyre in Vietnam market	169
Graph 6-53	Market Perception for other countries in Vietnam market	170
Graph 6-54	Market Perception for commercials wheels from china in Vietnam market	171
Graph 6-55	Market Perception for commercials wheels from India in Vietnam market	172
Graph 6-56	Market Perception for commercials wheels from local manufacturers in Vietnam market	173
Graph 6-57	Volume V/S Domestic Production	177
Graph 6-58	Volume V/S Imports	177
Graph 6-59	China vs India	181
Graph 6-60	Other country vs India	181
Graph 6-61	Local vs India	181

LIST OF FIGURES

Figure No.	Title of Figure	Page No.
Figure 1.1	Picture of Tyre	13
Figure 1.2	Picture of Wheel Rim	15
Figure 1.3	Types of Wheel Rim	16
Figure 6.1	Radial-Bias tyre production comparison	141

LIST OF APPENDICES

Appendix No.	Appendix Name	Page No.
Appendix A	Questionnaire	226
Appendix B	Respondents contacted in various countries	235
Appendix C	Free Trade Agreements signed by India with various countries	238

LIST OF ABBREVIATIONS

Abbreviations	Full form
AAT	Auto Alliance of Thailand
ACMA	Automotive Component Manufacturers Association of India
ADB	Asian Development Bank
ADO	Asian Development Outlook
AICO	ASEAN Industrial Cooperation Scheme
AIFTA	ASEAN India Free Trade Area
AMW	Asia Motor Works
APEC	Asia Pacific Economic Co-operation
ASEAN	Association of Southeast Asian Nations
ATMA	Automotive tyre manufacturers association
BKPM	Indonesia Investment Coordinating Board
BOI	Board of investment
BRICS	Brazil, Russia, India, China and South Africa
C/O	Certificate of Origin
CAFTA	China-ASEAN Free Trade Area
CAGR	Compound Annual Growth rate
CBU	Completely built up
CCI&E	Chief Controller of Imports & Exports
CECA	Comprehensive Economic Cooperation Agreements
CENVAT	Central Value Added Tax
CEPA	Comprehensive Economic Partnerships Agreements
CEPT	Common Effective Preferential Tariff
CKD	Completely knocked down
COO	Certificate of Origin
CPI	Consumer Price Index
CV	Commercial vehicle
DB	Doing Business
DCI	Domestic Investment
DEPB	Duty Entitlement Pass Book

DGFT	Directorate General of Foreign Trade
DMC	Developing member countries
DoR	Department of Revenue
DSIR	Department of Scientific & Industrial Research
DSM	(ASEAN-India) Dispute Settlement Mechanism Agreement
EE	Electrical and Electronics
EHTP	Electronics Hardware Technology Park
EO	Exports Obligations
EOU	Export Oriented Unit
EPCG	Export Promotion Capital Goods
EU	European Union
FDI	Foreign Direct Investment
FIA	Foreign investment agency
FICCI	Federation of Indian Chambers of Commerce and Industry
FISME	Federation of Indian Micro and Small & Medium Enterprises
FTA	Free Trade Agreement
FTI	Federation of Thai Industry
GATT	General Agreement on Tariff and Trade
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GNI	Gross National Income
GSO	GCC Standardization Organization
HCV	Heavy Commercial Vehicle
HSC	Harmonized System Code
IEC	Import Export Code
IEM	Industrial Entrepreneur Memorandum
IIAPAEE	Indonesia International Auto Parts Accessories & Equipment Exhibition
IIBTCE	Indonesia International Bus Truck Components Exhibition
IL	Industrial License
IMF	International Monetary Fund
IOMVM	Inter Organisation of Motor Vehicle Manufacturing

IP	Intellectual Property
IT	Information Technology
ITC	Indian Tariff Code
JIE	Jakarta International Exports
KMW	Kalyani Maxion Wheels
LCGC	Low Cost Green Car
LCV	Light Commercial Vehicles
LNG	Liquid natural gas
LOI	Letter of Intent
MCV	Medium Commercial Vehicles
MEIS	Merchandise Exports from India Scheme
MFN	Most Favored Nation
MNC	Multi-National Corporation
MOI	Ministry of Industry
MOSPI	Ministry of statistics and program implementation
NAFTA	North American Free Trade Agreement
NFEE	Net Foreign Exchange Earning
NIE	Newly Industrialized economics
NTB	Non-tariff barriers
OECD	Organizations for economic cooperation and development
OEM	Original Equipment manufacturers
OICA	Organization Internatinal Des Constructeurs D'Automobiles
OPEC	Organization of the petroleum exporting countries
PC	Personal Computer
PPP	Purchasing power parity
PTA	Preferential Trading Agreements
R&D	Research & Development
R&D&C	Research, Development and Communication
RBI	Reserve bank of India
ROO	Rules of Origin
SAARC	South Asian Association for Regional Cooperation
SBV	State Bank of Vietnam

SCV	Space Construction Vehicles
SEDS	National Socio-economic development strategy
SEIS	Service Exports from India Scheme
SEZ	Special Economic Zones
SIAM	Society of Indian Automobile Manufacturers
SME	Small and Medium Enterprise
SOE	State Owned Enterprises
SSWL	Steels Strip Wheels Ltd
STPS	Software Technology Park
TIG	Trade in goods
UK	United Kingdom
USA	United States of America
VAMC	Vietnam Asset Management Company
VND	Vietnamese Dong
WIL	Wheels India Ltd
WTO	World Trade Organization

ABSTRACT

On

“A study of Market Perception for select Indian Automobile Components in Indonesia, Thailand & Vietnam Markets. (Period 2009-2012)”

1. INTRODUCTION

Globalization is one of the major driving force behind today's business. Open business environment and favourable policies by various government around the world has led to global market integration. With changing business environment organizations are trying to take advantage of this situation. The global companies are changing their sourcing and selling strategy to keep competitive advantage over other companies.

Countries like China, India, Indonesia, Philippines, and Brazil etc. have become preferred locations for outsourcing different functions of business. Among those countries China and India are considered as manufacturing hub of the world. Governments, Businesses and trade associations in these countries have taken notice of this trend and planning accordingly.

One of the important target of most of the companies is to increase its revenue through more and more exports. Many Indian companies have become Multinational companies and spreading their wings over the globe. As explained above there is huge potential for exports of Indian components. However, at the same time it is not easy to enter in overseas market. One needs to study culture, background, business environment, potential, different government policies, various trade agreements and intensive competition from countries like China. As it is known that Chinese components are entered in almost every market with low price strategy.

In this globalise and expanding market, researcher has decided to study International markets, economies of selected countries i.e. South East Asian countries, market perception for the selected Automobile Component and competition to suggest appropriate short term as well as long-term strategy.

Automobile industry is the single largest manufacturing industry in the world and it is one of the most globalized industries in the world Indian Automobile Industry poised for major growth phase. Despite challenges, the Industry catching up fast with global trends and standards - both on technology and quality processes. Indian auto component Industry is well positioned to grow at 11% CAGR (Compound Annual Growth rate) and will reach US \$ 66 bn by 2018. Indian Auto Industry likely to retain Low cost advantage for a sizeable period.

Indian Auto-component industry at a glance

Year	Turnover (USD Bn)	CAGR Turnover	Exports (USD Bn)	CAGR Exports	Imports (USD Bn)	CAGR Imports
2007-08	27.2	11%	4.5	29%	7.1	18%
2008-09	24.1		5.1		8.2	
2009-10	30.8		4.2		8.0	
2010-11	41.3		6.6		10.9	
2011-12	42.2		8.8		13.8	
2012-13	39.7		9.7		13.7	
2013-14	35.1		10.2		12.8	
2014-15	38.5		11.2		13.58	

Source: Data from ACMA (Automotive Component Manufacturers Association)
CAGR: Compounded Annual Growth Rate

Researcher has chosen Automobile component market specifically as this market is growing fast as mentioned in above and having good scope for exports in various countries due to technological and Qualitative advantage. Automobile components are divided in 20 various product family. As per the function of these components the product families are defined. For e.g. if parts are used in Engine – it will be defined under Crank shaft-engine parts, same with lamps, gear boxes, steering system etc. Researcher has chosen Tyre & Wheel family for this research.

The researcher has chosen S.E. Asian countries be to present FTA (Free Trade Agreement) between India and ASEAN countries. Good opportunities are available for Indian component industry to explore business possibility with these ASEAN

countries. One need to understand countries involved in ASEAN countries there are total 10 countries part of this. Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. Out of these major countries researcher has chosen 3 major countries to conduct this research these are Indonesia, Thailand and Vietnam. To conduct this survey following objectives are decided.

Objectives of the Study

- To study socio-economic culture of selected countries. Study government policies, economic status and consumer behavior with reference to automobile market and selected automobile components in these countries.
- To study Indian government schemes for exports promotion and also study inter country agreements like Free Trade Agreements and its benefits.
- To Study market perceptions, import pattern, competition, pricing and present potential for select auto component (Tyre & Wheels) in selected countries.
- To suggest marketing strategies for select components for selected countries and also suggest marketing model for Auto Components for overseas market.
- To make suggestions to Automobile component Industry as well as respective Government departments regarding exports of Auto components.

Apart from Introduction of research topic. Chapter no 1, also explain about Further to Indian Automobile & Auto Component Industry in detail

- a) Automotive Cluster in India.
- b) Trend of all Vehicle production.
- c) Growth trend of Indian Automotive Component Industry & also its Turnover.
- d) Export / Import pattern & component name & countries.
- e) Introduction to Tyre and Wheel Industry & overall summery.

Chapter 2:- INTRODUCTION TO ECONOMIES OF INDIA, THAILAND, INDONESIA AND VIETNAM

This chapter mainly focus Economies of India as well as selected 3 countries from S.E. Asia i.e. Indonesia, Thailand & Vietnam.

Economic overview of India covers Post Liberalization period & current economy conditions. Also covers trend of GDP & Annual Growth Rate. Economic Ranking in Doing Business – 2016 ranking 130. Top Exports & Imports commodities from India, India's Export & Import source. Balance of trades. As a summery India is one of the growing country with GDP @ 7-8 % presently. Export and Imports are increasing continuously however trade deficit is cause of concern.

Next section is focused on Thailand, Indonesia and Vietnam. It covers following countrywide:

Economy and country profile, Population, Socio-economy culture. It covers economy Review trend of GDP. Economic Ranking in Doing Business Various Industrial policies, Localization policies, Automobile Industry and total vehicle sales. Vehicle manufacturers in respective country. Vehicle sales. Exhibition related to Truck and Bus.

As a summary all the 3 countries are growing countries Thailand is also one of growing country, however facing political instability affecting their growth rate. Doing business rank 26 in 2015. Indonesia is also one of growing country like India with GDP is more than 5%. It is blessed by lot of natural minerals and youth population which is helping to boost economy. 2015 ranking of Ease of Doing business is 114. Many Automobile vehicle manufacturers present in Indonesia and market is showing good growth 8-25% on year on year basis. Vietnam is comparatively small market w.r.t. Indonesia and Thailand. However impressive GDP growing with approx. 5%.2015 ranking of Ease of Doing business is 78. Automobile market is also struggling due to various challenges like supply chain, import dependency.

Chapter 3: REVIEW OF LITERATURE (PART I)

India-The Foreign Trade Policy 2015-2020 & Free Trade Agreements

One of the objective of the research is to study the government export incentive schemes and various free trade agreements signed by government of India to ASEAN countries. The best document to study export policies are “INDIA -The Foreign Trade Policy 2015-2020. Published by Ministry of Commerce and Industry Department of Commerce. (Notification dated 1st April 2015) and ASEAN-India Trade in Goods

(TIG) Agreement which was signed in Bangkok on 13 August 2009 by government of India. The researcher has taken review of both these documents and explained below.

- a) DGFT(Directorate General of Foreign Trade) & Function of DGFT
- b) Merger of Reward Scheme (MEIS & SEIS Schemes). Status Holder status
- c) Make In India & Other new incentives
- d) Duty Exemption
- e) List of FTA's signed by Indian Govt.
- f) ASEAN-India Free Trade Agreement (AIFTA)
- g) Impact of FTA on Indonesia, Thailand & Vietnam
- h) Potential negative effects of FTA

Chapter 4:- REVIEW OF LITERATURE (PART II)

The objective of literature review is to review several schools of thought, papers/thesis presented by various scholars, reports of various government as well as private agencies to understand research done in this area so far, understand the current definition for market perception or customer perception and derive gaps in the existing research or to find out further scope of research. While reviewing current and future marketing strategies understanding customer perception (market perception) seems to be one of the most relevant marketing tools in today's era. This research is based on specific automotive components in selected countries, so direct research on similar topic has certain limitations in availability, hence researcher has reviewed the literature with help of reports available from various government and private agency, Research papers/articles ,Thesis and books.

To derived this perceived price and also to understand value expectation of customer in overseas market for automotive component researcher tried to study the market perception of automobile component w.r.t. various parameters like Quality, Price, Brand recognition, Availability in market, Warranty/Service provided, life of product. Study will be conducted in 3 countries i.e. Thailand, Indonesia and Vietnam with reference to Commercial Tyre and Wheel.

Other gaps or difference observed are the difference in duty for various countries, incentives provided by government, policy differences, trade barriers, which was also studied in with help of Foreign Trade Policy document, Free Trade agreements, and various research papers/thesis.

Chapter 5:- RESEARCH METHODOLOGY

In the beginning Introduction to the topic & Objectives of the research has already covered. Following are the other main points covered in this chapter.

Scope and Limitation of Study

The study is limited to three countries in South East Asia i.e. Thailand, Indonesia and Vietnam.

- The Scope of study is limited to Aftermarket (Spare/Replacement Market).
- Scope of the Study includes Major Dealers having presence on national level, Major Trailer manufacturers and sales office of tyre Manufacturers.
- Scope of the study is limited to select under chassis components (Tyre & Wheel) for Heavy and Medium commercial vehicles only.
- Market Research is limited to one or two Major cities (preferably capitals) of each country, where majority of offices are located.

Vehicles are classified based on their applications like Passenger Car Vehicles (PCV), Utility Vehicles (UV), Light commercial vehicle (LCV) and Medium commercial vehicles (MCV) and Heavy commercial vehicle (HCV). Each type of vehicle is having big market and potential, to focus on particular segment. Researcher has chosen MCV and HCV segment for research.

Automobile market is again divided in two parts OEM (Original Equipment Market) i.e. vehicle manufacturer and Aftermarket i.e. spare part and replacement market. Researcher has chosen After Market for study as is more challenging to formulate strategy for these markets.

Hypothesis of the Study

HA 01: Thailand, Indonesia and Vietnam are importing lot of Auto Components from various countries.

HA 02: Import from other countries at lower price and vast availability in market restricts penetration for Indian Automobile Component.

HA 03: Market Perception for Indian Automobile components is better than Chinese components in terms of Quality, Service and Brand recognition.

Above Hypothesis are further sub classified into first for country and then for selected component i.e. Tyre and wheels. In short HA 01 further sub classified as Thailand Market $H1_{T1}$ (Commercial Tyre) $H1_{T2}$ (Commercial Wheel). Similar for Indonesia market - $H1_{I1}$, $H1_{I1}$ & Vietnam Market - $H1_{V1}$, $H1_{V2}$

Pilot Study is done with 1 dealer for each component i.e. tyre and wheel rim in each country to understand overall market. During Pilot Study, it has been observed that such Dealers/Distributors dealing in Tyre and Wheel at national level are approx. 15 no in each country.

Research Design

As explained earlier this research is mainly conducted in 3 Asian countries for select automotive components, there are certain limitation of accessibility to data. Research Design is done by considering this limitations. **Descriptive method** with cross-sectional approach is used for research.

Sample Design

As brief in pilot study population approx. 15 nos of Dealers/ Distributors are present in each country dealing in Tyre and Wheels in Spare market for Heavy and Medium Commercial vehicles, researcher has selected sample size of 6/8 respondent in each

selected country. However while selecting these respondent due care has taken that these dealers/manufacturers are covering approx. 40% of market

- 3 Countries :- Thailand, Indonesia & Vietnam
- 2/3 Sales Offices of major Tyre manufacturer in each country
- 4/5 major dealer in each country

Sampling Techniques: - Purposive Sampling Technique

Research Instrument: - Personal Interview & Questionnaire

Data Collection: - Primary Data collected by detailed interview of 7 respondent in each country with help of questionnaire. Secondary data collected with help of various literature available, reports from various agencies.

Statistical Design – Testing of Hypothesis

After the data have been collected, data is analyzed by 2 methods. First analysis is done by presenting the data in tabular format and wherever required analysis is done with help of Graphs and Histograms. In second phase of analysis, hypothesis testing is done by help of Statistical tests like Two Sample T test, Box plot, Simple linear Regression with help of fitted plot and Pearson Correlation factor.

Chapter 6: –PRESENTATION AND ANALYSIS OF DATA AND HYPOTHESIS TESTING

Part I – Presentation and Analysis of Data.

The data collected through interview, questionnaire and external agency is presented and analyzed in this part with help of tables and graphs. As this research is done in 3 countries i.e. Thailand, Indonesia and Vietnam and based on 2 selected components Commercial Tyre and Commercial Wheel. To facilitate reading and understanding researcher has done the analysis as per country and then automobile component as. While analyzing the data, the researcher has followed a sequence as per questionnaire. Analysis for commercial Tyre has done 1st followed by Wheel rim.as follows:-

- 1) Total Demand of market for Tyre and Wheel rim.
- 2) Total supply to market from various countries

- 3) Requirement of market according to Type and size of Tyre and Wheel.
- 4) Brand preferences in the market for Tyre and Wheel rims & vehicles.
- 5) Consumer Priorities while buying Tyre and Wheel rim.
- 6) Market perception for Commercial tyre and Wheel rim w.r.t. Importing country i.e. China, India & other or local country.
- 7) After above analysis researcher has also analysis import duty for Tyres and Wheels while importing from various countries followed by Import-export between India and selected country for automotive component.

PART II - Hypothesis Testing

In this chapter researcher has done hypothesis testing with help of Simpler Regression Analysis (fitted line plot), Pearson Correlation factor, two sample T test and simple statistical tool like Mean (Avg). As the research is based in 3 countries and two selected component, each hypothesis is tested for each component for respective country.

The main hypothesis is divided in sub hypothesis for Country and then for product as Thailand Market $H1_{T1}$ (Commercial Tyre) $H1_{T2}$ (Commercial Wheel). Similar for Indonesia market - $H1_{I1}$, $H1_{I1}$ & Vietnam Market - $H1_{V1}$, $H1_{V2}$.

H1 - Thailand, Indonesia and Vietnam are importing lot of Auto Components from various countries.			
$H1_{T1}$	Thailand	Commercial Tyre	Partially Accepted
$H1_{T2}$	Market	Commercial Wheel	Fully Accepted
$H1_{I1}$	Indonesia	Commercial Tyre	Partially Accepted
$H1_{I2}$	Market	Commercial Wheel	Fully Accepted
$H1_{V1}$	Vietnam	Commercial Tyre	Fully Accepted
$H1_{V2}$	Market	Commercial Wheel	Fully Accepted
H2 - Import from other countries at lower price and vast availability in market restricts penetration for Indian Automobile Component.			
$H2_{T1}$	Thailand	Commercial Tyre	Accepted
$H2_{T2}$	Market	Commercial Wheel	Accepted
$H2_{I1}$	Indonesia	Commercial Tyre	Rejected
$H2_{I2}$	Market	Commercial Wheel	Rejected
$H2_{V1}$	Vietnam	Commercial Tyre	Rejected
$H2_{V2}$	Market	Commercial Wheel	Accepted

H3 - Market Perception for Indian Automobile components is better than Chinese components in terms of Quality, Service and Brand recognition			
H3_{T1}	Thailand	Commercial Tyre	Partially accepted for Quality
H3_{T2}	Market	Commercial Wheel	Partially accepted for Quality & Brand
H3_{I1}	Indonesia	Commercial Tyre	Partially accepted for Quality & Brand
H3_{I2}	Market	Commercial Wheel	Partially accepted for Quality & Brand
H3_{V1}	Vietnam	Commercial Tyre	Partially accepted for Quality & Brand
H3_{V2}	Market	Commercial Wheel	Partially accepted for Quality

Chapter 7 - FINDING AND OBSERVATIONS, SUGGESTIONS AND CONCLUSIONS

In this chapter researcher has summarized the findings from the research, various observations made while analyzing the primary as well as secondary data. Researcher made suggestions to Commercial Tyre industry and Commercial Wheel industry of India. Certain valuable suggestions are also made to Government of India regarding policy issues to ease the business for automotive industry. As a conclusion researcher tried to conclude trade relationship between India and ASEN countries and over all automobile component industry in selected countries w.r.t. Tyre and Wheels.

Researcher suggested generalized marketing model for Automobile Component Industry to take an entry in new overseas country. At the end in this chapter researcher specified impact of the study on various communities and also the future scope of study.

Findings for Thailand Market

Commercial Tyre:

Total Spare market requirement of tyre @ 800k with 6-8% growth rate. 80% is domestic production & China Penetration @ 15%. Radial Tyre penetration- 45% & Bias Tyre – 55%. Major Brads are Bridgestone & Michelin.

Quality & brand name is considered most while buying tyre. Chines tyre are having perception of Low price & low Quality, whereas medium perception for price & quality Indian tyre. Locally produced foreign brands are with high Quality & price. Import duty for Indian Tyre is 7%, whereas Chinese Tyre 10%.

Commercial Wheel Rims:

Total Spare market requirement of tyre @ 100k with 10-12% growth rate. No local manufacturer hence China Penetration @ 80% & India @ 10%. Tube type wheel penetration- 60% & Tube less wheel – 40%. Price & Quality are considered most while buying wheels. Chines wheels are having perception of Low price & low Quality, whereas good perception for price & quality of Indian wheels. Import duty for Indian wheels is 10-30%, whereas Chinese Wheel duty 0%.

Findings Indonesia Market

Commercial Tyre:

Total Spare market requirement of tyre @ 200k with 20% growth rate. 75% is domestic production & China Penetration @ 10-15%. Indian Tyre penetration 10%. Radial Tyre penetration- 15% & Bias Tyre – 85%. Major Brads are Bridgestone & Michelin & MRF from India. Quality & brand name is considered most while buying tyre. Chines tyre are having perception of Low price & low Quality, whereas medium price & good quality perception for Indian tyre. Locally produced foreign brands are with high Quality & price. Import duty for Indian Tyre is 15%, whereas Chinese Tyre 15%.

Commercial Wheel Rims:

Total Spare market requirement of tyre @ 110k with 10-12% growth rate. 25% market cater by local manufacturer, hence China Penetration @ 60% & India @ 5%. Tube type wheel penetration- 85% & Tube less wheel – 15%. Quality & Availability in market

are considered most while buying wheels. Chines wheels are having perception of Low price & low Quality, whereas medium perception for price & quality of Indian wheels. Import duty for Indian & Chines wheels is 15%.

Vietnam Market

Commercial Tyre:

Total Spare market requirement of tyre @ 275k with 8-10 % growth rate. No local manufacturer hence import from Thailand is 50%. China Penetration @ 25%. Indian Tyre penetration 25%. Radial Tyre penetration- 40% & Bias Tyre – 60%. Major Brads are Bridgestone & Michelin & Mexis. Quality & brand name is considered most while buying tyre. Chines tyre are having perception of Low price & low Quality, whereas medium price & good quality perception for Indian tyre. Market perception of Tyre imported from Thailand is high Quality & price. Import duty for Indian & Chinese Tyre is 25%, whereas Thailand Tyre 5%.

Commercial Wheel Rims:

Total Spare market requirement of tyre @ 50k with 10-12% growth rate. Little market cater by local manufacturer, hence China Penetration @ 80% & India @ 5%. Tube type wheel penetration- 75% & Tube less wheel – 25%. Quality & availability in market are considered most while buying wheels. Chines wheels are having perception of Low price & low Quality, whereas medium perception for price & quality of Indian wheels. Import duty for Indian & Chines wheels is 25%.

Suggestions & Recommendations

Below are the suggestions & recommendation in brief.

Commercial Tyre Industry:

- 1) Demand for Tyre growing approx. 10% in ASEAN countries. In light of present FTA with ASEAN countries, Indian Tyre manufacturers can focus on majority of ASEAN countries. Initial entry can be taken for Bias tyre.
- 2) The major size consumed in Bias is 10R-20, there are some new emerging sizes due to Tubeless Tyre requirement of Radial tyre requirement like 295-80/R 22.5, which needs to consider and target.

- 3) All the S.E.ASEAN market are shifting towards new technology of Radial Tyre. Having potential to develop this technology, Indian Tyre manufacturer's needs to understand the changing trend and expedite the development.
- 4) Overall market perception of consumer is that consumer preferring Quality and Brand over price while purchasing the tyre. Indian Tyre manufacturers needs to focus on Brand building in these countries. Also can take entry with Medium price but with a good Quality product to improve perception about Quality and to become successful in market. Need to improve availability in market and offer warranty or service.
- 5) Present Import duty for Indian Tyre is normally high for ASEAN countries (Except Thailand) in the range of 15-20%. Indian Tyre manufacturers association can approach to Indian government and suggest to add this item in FTA priority list/mechanism to reduce duty as fast as possible.
- 6) Normally strategy followed by Indian Tyre manufacturer is to go with own office/branches or dealer, however it is suggested that they can also check for allied product like wheel or Axle and make a joint strategy to approach Spare and Trailer manufacturer.
- 7) Indian tyre manufacturers can think of setting up plant in such countries to cater S.E. Asian market. Basic raw material like rubber is also available in this area so it will be advantageous to import raw material at lower price with duty advantage and also to cater ASEAN market demand & OEM demand.

Commercial Wheel Rim Industry

- 1) Demand for commercial wheel rim market in Thailand, Indonesia and Vietnam is growing by 10-12% per annum. Small presence of Indian Wheels. Considering present FTA and trade between ASEAN countries and India, Wheel manufacturers can focus on majority of ASEAN countries.
- 2) It is observed that Asian countries are mainly dominated by Tube Type wheels of approx. 60-70% dominated by low priced Chinese Wheels. It is suggested that Indian Wheel rim manufacturer can target Tubeless wheel segment to take an entry as this segment is also growing.
- 3) Indian Wheels can target niche markets, where requirement is of Heavy duty wheel rim. For e.g. Mining sector in Indonesia Market (Requirement of 8.0-20 and 8.5-24").

- 4) No major wheel rim manufacturing company in most of the S.E. Asian countries, Indian wheel rim manufacturers can think of starting manufacturing facility in this region. As trade between ASEAN countries having import duty 5%, it will be advantageous to start facility in this region. Also can target OEM customers.
- 5) Overall market perception of consumer is that consumer preferring Price and availability in market over Quality and Brand Name. It is suggested that Indian wheel manufacturer can focus on Niche market with customized product or technologically advanced good quality product with appropriate pricing strategy.
- 6) Present Import duty for Indian wheel is from 10-30% in Thailand Market, 15% in Indonesian Market and 25% in Vietnam Market. Such a high duty is disadvantageous and increasing price of product. In Thailand Chinese product duty structure i.e. 0%. Indian Manufacturer can be careful while choosing HS code while exporting the goods so that min duty will be applicable and also need to follow up with government to consider revision of duty for this product in FTA.
- 7) Indian Wheel manufacturer can make a tie up with allied product like Tyres and can promote wheel rims along with major tyre brand like Michelin/ Bridgestone. Also focus to introduce technologically advanced product or light weight product.

Certain suggestion are common for both Tyre & Wheel manufacturer to take care about having mandatory regulation/ trade barriers while exporting to any particular country. E.g. SNI certificate is compulsory for Indonesia market. Visit/participate the exhibitions related to targeted product.

Suggestions to Government of India

- 1) Major focus is given on major 4-5 countries in ASEAN countries. Other countries are also having good potential for export, it is suggested to take initiative on governmental level to develop more trade activities of other ASEAN countries as well.
- 2) It has been observed that duty structure for most of the Automobile products is in the range of 10-30% compare to duty for ASEAN countries 5% and China -0% in some countries like Thailand and Malaysia. Suggested to consider Automobile components on priority list, where duty can be reduced to lower tariff. In addition to this FTA is slashing the duty year on year, the process is slow i.e. 1 % slashing of duty every year.

- 3) One of the main reason of competition from China is export incentives provided by Chinese government for their export around 17%, whereas export incentives given by Indian government is ranging from 2 to maximum 4% under various scheme. Government can work further on Export incentive schemes and suggested to make compatible with other countries like China.
- 4) Natural rubber is imported from ASEAN countries to India to make tyre, however import duty for this rubber is very high and no much advantage to Indian Tyre producers due to current FTA. It is suggested to add this item as well on priority list to reduce import duty to make Tyre manufacturers more cost competitive.

Further to above some more general suggestions made to government.

Conclusion

As a conclusion, researcher found that that Chinese products are penetrating in market with low price and huge availability with variety. Chinese product gets some duty advantage, export incentives as well, which makes them more competitive. Indian manufactures will definitely face this huge competition. Researcher has suggested some strategies to tyre and wheel industry to enter in international market.

As Government of India is also promoting more and more exports, lot of initiatives are taken on government front as well to facilitate export and increase trade. Foreign Trade Policy 2015-2020 is an example of same. As an initiative Government of India signed FTA with ASEAN countries which has helped to increase trade between India and ASEAN countries. Automobile components are no exception to that.

Apart from specific suggestion made to Tyre & wheel industry & govt. of India, researcher has certain suggestion to make overall Automobile component Industry.

Based on overall survey at the end researcher has prepared and propose '**Model for Marketing Strategies for Indian Auto – Component manufacturers**'. However the strategies will differ from product to product, this model or guidelines will definitely help the automobile component manufacturers to take successful entry in in new international markets.

Impact of Study

- This study will be helpful for Auto Component manufacturers as a guideline to explore various international markets along with countries studied in this research.
- Useful for International marketing students to understand global market, cultural differences & formulation of various marketing strategies depend upon market & Product.
- To Understand Government Foreign Trade Policies, Free Trade Agreements & Manufacturers can approach Government for addition/modification of duty structure in case of FTA with various countries.
- Useful data for Indian Wheel & Tyre manufacturers of Thailand, Indonesia & Vietnam Market.

Future Scope for further study

- The present study is limited to Tyre & Wheel rims for commercial vehicles in 3 countries. This Study can be extended to other Auto components for commercial vehicle market & for various countries
- The study is conducted on Spare market, however there is big market called OEM (original Equipment Manufacturer) market. Similar study can be undertaken for OEM market.
- Similar study can also be conducted for Passenger Cars or Light commercial vehicles as this study is limited to Heavy Commercial Vehicles

Dr. Ashok Kulkarni

(Research Guide)

Santosh Wagh

(Research Student)

Chapter-1

INTRODUCTION

Globalization is one of the major driving force behind today's business. Open business environment and favourable policies by various government around the world has led to global market integration. With changing business, environment organizations are trying to take advantage of this situation. The global companies are changing their sourcing and selling strategy to keep competitive advantage over other companies.

This changing environment demonstrates the importance of expertise, quality, and low cost in highly competitive world. Irrespective of the scope of the work/operation i.e. high end like R and D or manufacturing, the companies are concerned about cost to maintain their competitive advantage over others.

Countries like China, India, Indonesia, Philippines, and Brazil etc. have become preferred destinations for outsourcing different functions of business. Among those countries China and India are considered as manufacturing hub of the world. Governments, Businesses and trade associations in these countries have taken notice of this trend and planning accordingly.

One of the important target of most of the companies is to increase its revenue through more and more exports. Many Indian companies have become Multinational companies and spreading their wings over the globe. As explained above there is huge potential for exports of Indian components. However, at the same time it is not easy to enter in overseas market. One needs to study culture, background, business environment, potential, different government policies, various trade agreements and intensive competition from countries like China. As it is known that Chinese components are entered in almost every market with low price strategy.

In international markets, choosing the potential country and right partner for business is important from long-term perspective and for business development. Market environment, business culture, legal systems are different for each country.

In this globalise and expanding market, researcher has decided to study International markets, economies of selected countries, market perception for the selected product and competition to suggest appropriate short term as well as long-term strategy.

As per Ministry of Commerce and Industry of government of India, exports from India was US\$ 312 bn in 2013-14, out of that 20% are Engineering goods, 20% are Textile goods and 14% are Chemical and related goods. Automobile Industry is a part of engineering goods, which is a large portion of exports from India. Researcher has focus on select Automobile Components for this study. One needs to understand Indian Automobile Industry in detail.

1.1 Indian Automobile Industry

Automobile industry is considered as one of the largest manufacturing industry in the world. It is not only largest but also most globalized industries in the world. Any vehicle manufactured anywhere requires several hundred components in it. OEMs (Original Equipment Manufacturer) source these components from the suitable suppliers keeping in mind Quality, Cost and Delivery. This function of sourcing the components is undergoing sea change in the changing environment.

No exception but Indian Automobile Industry is also treated as one of the largest automotive markets in the world. In the initial days it had been performing as one of the fastest growing markets however currently it is experiencing flat or negative growth rates. India's Commercial Vehicle and Passenger Car manufacturing industry is at number 6th position in the world. It is also known as Asia's 4th largest exporter after Japan, South Korea, and Thailand.

Indian Automobile Industry poised for major growth phase. Despite challenges, the Industry catching up fast with global trends and standards - both on technology and quality processes.

Indian Automobile Industry is divided in 4 parts i.e. South, West, North and East part. The Southern part comprising of Chennai, which is the greatest with 35% of the share. Various companies like Ford Motors, Hyundai Motors, Renault & Nissan, BMW,

Hindustan Motors, Daimler India and Datsun are located in Chennai belt. Chennai represents 60% of the nation's car trades.

Western part is mainly Mumbai and Pune, which contribute 33% of business. The Northern region contributes to 32%. The Chakan Area close to Pune, (Maharashtra) is the part of Western region having major organizations like Tata Motors, General Motors, Volkswagen India, Mahindra and Mahindra, Mercedes Benz, Fiat India, Force Motors. In western region only Nashik is having Mahindra and Mahindra. Northern part in Gurgaon and Manesar in Haryana having countries largest car wheel manufacturing company called Maruti Suzuki. On Eastern side in Kolkata Hindustan Motors and in Jamshedpur Tata Motors is located. Below table is showing cluster wise vehicle manufacturers location.

Table 1.1 Manufacturing base of Indian Vehicle Manufactures

Eastern Cluster	Western Cluster	Northern Cluster	Southern Cluster
Renault	Mercedes Benz	Maruti Suzuki	Ashok Leyland
Royal Enfield	PSA	New Holland	BMW
Same Deutz	Skoda	Mahindra	Caterpillar
TAFE	Tata Hitachi	Suzuki Motorcycle	Daimler
Tata Motors	Tata Motors	Swaraj Mazada	Ford
Toyota Kirloskar	Volkswagen	Tata Motors	Hyundai
TVS	Volvo Eicher	Yamaha	Nissan
Volvo Buses	Bajaj Auto	Eicher	
	Fiat	Escorts	
	Force Motors	Hero Motorcycle	
	GM	Honda SIEL Cars	
	Man Force	ICML	
	Mahindra	JCB	

(Source- Data from Automotive Component Manufacturers Association of India (ACMA)

Analysis: - Indian Automobile Industry is mainly divide in 4 clusters. Everything put together following are the vehicle manufacturers present in India.

- Total 15 Manufacturers of Passenger Cars including Multi-Utility Vehicles
- Total 9 Manufacturers of Commercial Vehicles (Including Heavy, Medium and Light commercial vehicles),
- Total 16 Manufacturers of Two/ Three Wheelers,
- Total 14 Manufacturers of Tractors,

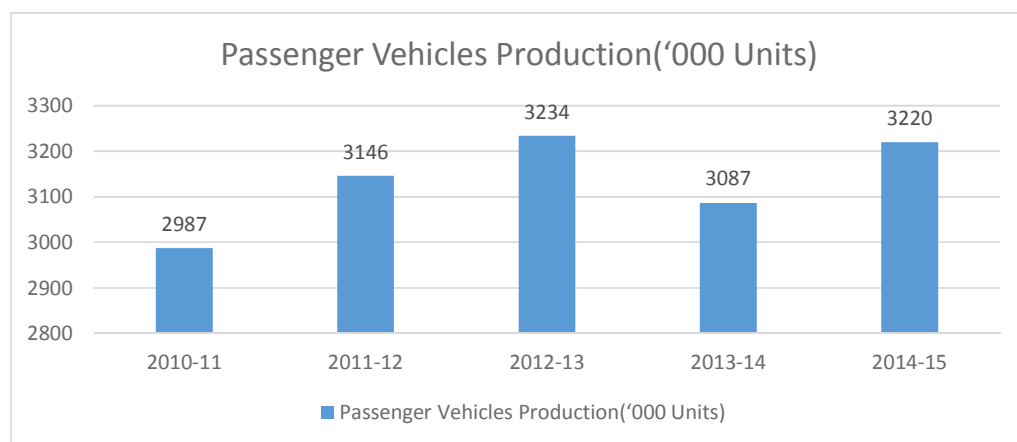
Automobile industry of India is catching up fast with global trends and standards - both on technology and quality processes.

1.1.1 Production of Automobile Vehicles

After understanding the location, let's understand total Automobile vehicle production. Automobile Industry mainly consists of Original Equipment manufacturers (OEM's), which are producers of vehicles. Automobile Vehicles are normally classified as Passenger Car and Multi utility vehicles, Commercial vehicles, two and Three Wheelers, Tractors and other construction vehicles.

Following is the statistics of production of vehicles from 2010 to 2014 in major 5 parts as per vehicle classification. 1) Passenger vehicle (including multi utility vehicles) 2) Commercial vehicle, 3) Two and Three Wheelers, 4) Tractors, 5) Construction vehicles.

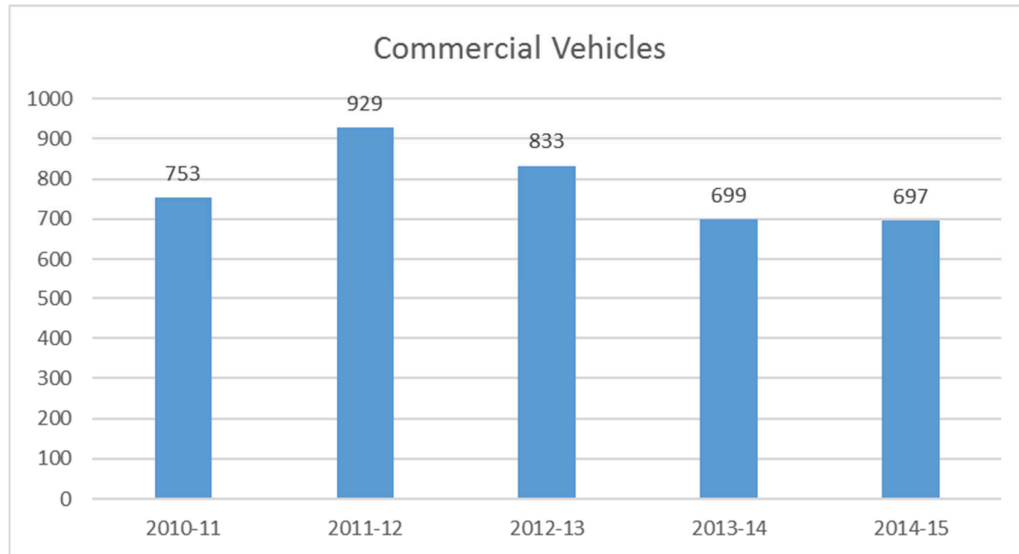
Graph 1.1 -Passanger Vechicle Producrion('000 Units)



(Source: Data from SIAM (Society of Indian Automobile Manufacturers))

Analysis: - Passenger vehicle production was showing good growth till 2012-13, however production was slowed down in 2013-14 and shown negative growth. This is mainly due to recession during this period. However same has started picking up from 2014-15. India being developing country, the demand for passenger vehicles is increasing & this segment is expected to grow further.

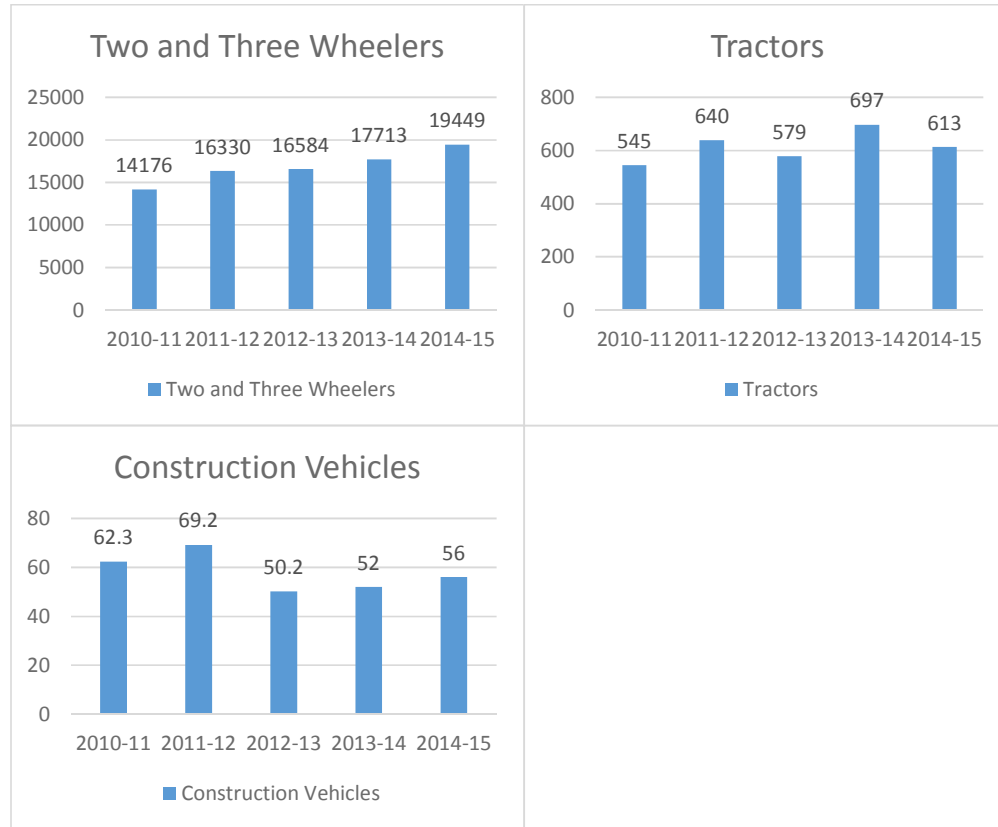
Graph 1.2 -Commercial Vehicle Production (CV)



(Source: Data from SIAM (Society of Indian Automobile Manufacturers))

Analysis: - Commercial vehicles includes Small CV < 1T, Light CV>1 T <7.5T, Medium CV >7.5T<16T and Heavy >16T. Commercial vehicle production was showing growth till 2011-12, however production was slowed down in 2012-13 and remained flat in 2014-15. However, all trade and construction activities are increasing in Indian market and it is expected that the demand for commercial vehicles will also increase in coming years.

Graph 1. 3-Other Vehicles Production



(Source: Data from SIAM (Society of Indian Automobile Manufacturers)

Analysis: - Other vehicles like two and three wheelers, Tractors also shown good growth from 2010-11 to 2014-15. However, Construction vehicles production reduced in 2012-13 and started showing growth from 2013-14. As this segment is depended upon construction activity in country, this segment is also expected to do better in coming years. Certain segment like Tractor segment is mainly depend upon Agriculture, so there are up and down observed in this segment based on the rain in that year and how the agriculture segment is performing.

In-short for most type of vehicles there is small dip in 2012-13-14 and again showing growth from 2014-15. Being India is developing country and showing good economical growth rate, demand for all type of vehicles are expected to increase in coming year.

1.2 Indian Auto Component Industry

One of the important part of Automobile Industry apart from OEM is Auto Component Industry, which is supplying auto components to OEMs. Indian auto component Industry is well positioned to grow at 12-14% CAGR (Compound Annual Growth rate) and will reach US \$ 66 bn by 2018. Indian Auto Industry likely to retain Low cost and good quality advantage for a sizeable period.

Table 1.2- Indian Auto-component industry

Year	Turnover (USD Bn)	CAGR Turnover	Exports (USD Bn)	CAGR Exports	Imports (USD Bn)	CAGR Imports
2007-08	27.2	11%	4.5	29%	7.1	18%
2008-09	24.1		5.1		8.2	
2009-10	30.8		4.2		8.0	
2010-11	41.3		6.6		10.9	
2011-12	42.2		8.8		13.8	
2012-13	39.7		9.7		13.7	
2013-14	35.1		10.2		12.8	
2014-15	38.5		11.2		13.58	

(Source: Data from ACMA (Automotive Component Manufacturers Association))

CAGR – Compounded Annual Growth Rate

Analysis-

The overall domestic demand for automobile components is increasing with 11% CAGR and increasing with 29% CAGR in export. Further to this as per Vision 2020 document created by the Automotive Components Manufacturer's Association (ACMA), it is estimated to increase from the level of \$30 billion in 2009 to as much as \$119 billion by 2020. It was \$38.5 billion in 2014-15. The share of domestic auto parts manufacturers is expected to increase from about \$22 billion to \$84 billion. Exports by Indian auto component makers is expected to increase from about \$4.2 billion in 2009 to about \$29 billion by 2020 and presently at \$11.2 billion in 2014-15.

Year 2013-14 was one of the most challenging year for automotive industry, weakening in vehicle sales, increase in capital cost, high interest rates and fluctuation in exchange rates. Global economy faced crises in 2008 and so Indian Automobile Industry. There has been slow down in market till 2013-14. The auto segment industry remained at turnover of Rs.2, 11,765 crores (USD 35.13 billion) for the period April 2013 to March 2014, registering a decrease of 2% over the earlier year and a CAGR of 14% in the course of the most recent six years. However, the auto component industry considered this slowdown as an opportunity and utilise this to develop their internal capabilities. The newly elected government has recognized the potential and the need for revival of business so it has taken essential measures for the industry like increase investment up to 49% by FDI in defence sector which will soon open doors for the component makers. Extension of the excise duties till the end of the year has been well received by the auto industry at large.

1.2.1 Auto Components Supply to OEM's

Auto components are the various parts required to build vehicle for e.g. Engine, Tyres, Batteries etc. These parts are required for various types of vehicles. The detail of Auto component supplied to various vehicles (% of value) are given below.

Table 1.1 Auto Components Supply to OEM's

S. No.	Auto Components Supply to OEM's	No of parts
1	Passenger Vehicles	45%
2	Two-Wheelers	22%
3	Tractors	8%
4	Heavy Commercial Vehicle (HCV)	8%
5	Medium Commercial Vehicles (MCV)	5%
6	Light Commercial Vehicle (LCV)	4%
7	Three Wheeler	4%
8	Backhoe Loaders	2%
9	Others	3%

(Source: Data from ACMA (Automotive Component Manufacturers Association))

Analysis: Auto-components are supplied to various type of vehicles, major supply is for Passenger vehicles around 45%, followed by Two wheelers around 22%. Commercial vehicles all put together i.e. HCV, MCV and LCV it is 17%. However small portion is going for Backhoe loaders & other small vehicles. Normally production for passenger cars are more than HCV, MCV & LCV, hence parts supplied to passenger cars are more compare to other vehicles.

Now let's understand product range for Auto components. Auto components are divided in various groups like Engine parts, Suspension parts, Body and Chassis part etc. Details are given in below table.

Table 1.2 Product Range Auto Component Industry

S. No.	Product Range-Auto component industry	(% Values)
1	Engine Parts	31%
2	Drive Transmission and steering parts	19%
3	Suspension and Braking Parts	12%
4	Body and Chassis	12%
5	Equipment's	10%
6	Electrical Parts	9%
7	Others	7%

(Source: ACMA (Automotive Component Manufacturers Association))

Analysis: Value wise majority of auto components are Engine parts, which is one of the important group. It consists of 31% of share followed by Drive Transmission and steering parts (19%). One of the major area is Body & Chassis which is 12%. Electrical parts are also important but less in no are around 9%.

1.2.2 Imports - Auto Components to India

Let's understand various components are imported to India. The auto components industry Imports is declined by 6.3% to USD 12.8 billion in 2013-14 from USD 13.7 billion in 2012-13. Contribution of Asia and Europe is 57% and 34% respectively. In

Asia major exporter to India are China, Japan, South Korea and Thailand, while from Europe the key contributors are Germany, France, UK, Italy and Spain.

Table 1.3 Imports of Auto components to India

S. No.	Country	Origin of Imports: Share of Top 10 countries in %
1	China	23.94
2	Germany	14.57
3	Japan	11.53
4	South Korea	10.66
5	Thailand	8.27
6	U.S.A.	6.96
7	Italy	3.75
8	U.K.	2.67
9	France	2.01
10	Spain	1.40

(Source: ACMA (Automotive Component Manufacturers Association))

Analysis- As briefed earlier Asia and Europe are major contributor. In Asia China is 23.94% and from Europe segment Germany is highest with 14.57% of imports to India. Japan, Korea and Thailand is also exporting good no to India.

1.2.3 Exports of Auto components from India

The Indian auto component industry is showing good growth in exports also. It was USD 5.1 billion in 2008-09 and reached to USD 10.2 billion in 2013-14, at a compound annual growth rate of 15% over the last 6 years. Today, the industry exports to more than 160 countries which has been growing at 15 percent per. Major customers for Indian exports are OEMs or tier-1 suppliers. Following table is showing top 10 export destinations from India.

Table 1.6-Exports of Auto Components from India

S. No.	Countries	Exports Destination: Top 10 Countries in %
1	U.S.A.	22.35
2	Germany	7.51
3	Turkey	6.49
4	U.K.	5.43
5	Italy	4.79
6	Thailand	3.38
7	Brazil	3.37
8	China	3.07
9	U.A.E.	2.95
10	France	2.92

(Source: ACMA (Automotive Component Manufacturers Association))

Analysis- Traditionally the main export destination for India is USA (22.35%) mainly due to cost advantage for USA due to imports from India. Followed by Europe Germany (7.51%) & Turkey (6.49%). However, export to Asian countries is also increasing like Thailand (3.38%), China (3.07%).

1.2.4 Auto Component Family and Component selection

After understanding Auto Components in details, Imports to India as well as Exports to India, let's understand why the researcher has chosen Auto component market for study and selection of certain Auto components. Researcher has chosen Automobile component market specifically as this market is growing fast as mentioned in above and having good scope for exports in various countries due to technological and Qualitative advantage.

Top 20 exports components in terms of product family is given in below table. As per the function of these components the product families are defined. For e.g. if parts are used in Engine – it will be defined under Crank shaft-engine parts, same with lamps, gear boxes, steering system etc.

Table1.7-India's top 20 component exports in terms of product family during 2013-14

Hydraulic Power Steering Systems and Steering Gear Systems and Parts	Tyre & Wheels	Crank shaft for engines	Head lamps and other lighting equipment
Suspension systems and parts	Drive-axles and parts	Brake linings and pads	Spark Ignition
Gear boxes and parts	Starter motors and generators	Parts for automobiles and earth moving equipment	Radiators and parts
Air-conditioning equipment	Gas compressors: Turbo chargers	Valves, inlet and exhaust	Toothed wheels, other transmission parts
Wheels and Components for Construction and Earthmoving Equipment	Parts-air conditioning machines	Brakes and servo brakes; parts	Injection pumps for diesel engines

(Source: Data from ACMA (Automotive Component Manufacturers Association))

Analysis- As explained above the table is showing top 20 product family of Auto components exported from India in year 2013-14. It contains various parts like Steering system, Engine parts like Crank shaft, Brake parts, and Electrical parts. One of the important product family is Tyre and Wheels. Researcher has chosen this component for study as it is one of the important product family and having substantial exports to various countries.

Let's understand Tyre and Wheels. Tyre and Wheels are important parts of vehicle as, vehicle runs on Tyre and Wheel assembly. Tyre is the part which is in contact with road. Here below is the information about Tyre and wheels.

1.3. Indian Tyre Industry

Indian tyre industry is continuously reporting steady growth in recent year. This is mainly due to increase in passenger vehicle and two wheeler demand in Indian market. It has also established as one of the most competitive markets in the world and with the help of new technology, and advance production capabilities, India has



Figure 1.1

39 tyre companies with 60 plants spread across the country with total production of 1461 Lakh/Nos. Turnover of Tyre industry is above Rs.53000 crores. Indian tyre industry exports 86.80 Lakh/Nos and generates a turnover of Rs.10500 crores. Indian tyre industries has ten Large Companies comprising of Global MNCs and Indian Tyre Companies having presence overseas. Leading Indian Players in tyre industries are **Apollo tyres, CEAT Tyre, MRF, JK Tyres**, etc.

Indian tyre industry is capable to manufacture all types of tyres (except some specialized categories like Snow Tyres for which currently there is no requirement and Aero Tyres). Indian tire industry has the ability to deliver all classifications of tires. Household interest for tires to the degree of 98%, including interest for tires for every single new vehicle being presented in the nation, is being met locally. Indian tires have great acknowledgment in worldwide markets and Compounded Average Growth Rate (CAGR) of tire in the most recent one decade has been 8%.

New ventures in the Tire Industry have been in the tune of Rs.36000 crores in as of late finished Greenfield and real development ventures.

Let's understand Tyre Production in India. Below is the total of all Tyres manufactured by Indian manufacturers.

Table 1.8- Tyre Production – Avg. per Month (APM)

Category	2011-12	2012-13	2013-14	2014-15	2015-16
Truck and Bus Tyres (Lacs/Nos)	13.4	13.78	13.73	14.26	14.05
Passenger Car Tyres (Lacs/Nos)	23.95	26.73	26.39	29.79	29.43

(Source: - Data from Ministry of Finance, Government of India)

Analysis: The table is showing tyres mainly of Truck and Bus and Passenger Car Tyres. The data available in avg. production per month in respective year which can be converted in per Annum consumption, but data kept in original form of source. There is huge demand in the market for tyres and it is continuously increasing for e.g. demand for Truck and Bus tyre increases with approx. 5% from 13.4 lacs/month in 2011-12 to almost 14 lacs/month in 2015 within 5 years period. However more increase in Passenger Car Tyres i.e. from 23.95 lacs/month in 2011-12, it has reached to 29.43 lacs/month in 2015, showing almost 22% growth in 5 years. This is mainly due to increase in production of passenger cars and introduction of radial tyres.

1.3.1 Export by Indian Tyre Industry

Indian Tyre have good acceptance in global markets. Compounded Average Growth Rate (CAGR) of tyre exports in the last one decade has been 8%. Exports to over 65 countries worldwide. 17% export to highly quality conscious US market. Other major export markets are - (countries in) Latin America; UAE, Bangladesh, Iran, Philippines, Vietnam, Indonesia etc.

In South East Asia good no of tyres are exported. The scope of research is Tyres for Truck and Bus application. Truck and Bus tyres, Indian manufacturers are considerably present in Vietnam and Indonesia market with share of business of 25% and 10% respectively. However, there is strong competition from local manufacturers with International brands like Bridgestone and Micheline. So presence in some of the countries like Thailand and Malaysia is limited for Indian Tyres.

1.4. Indian Wheel Industry

After understanding tyres in details lets focus on second component i.e. Wheel Rim. Tyres are mounted on Wheel Rim. The purpose of the wheel is to connect the axle to the tyre and transmit forces from one to the other. A wheel essentially consists of two main parts: Rim and Disc. Its flanges hold the bead of tyre in place when the tyre is inflated. The two seats, usually inclined at 5° or 15° to improve the fitting. The drop center is needed to enable mounting and dismounting of the tyre and its shape reinforces the rim structure.



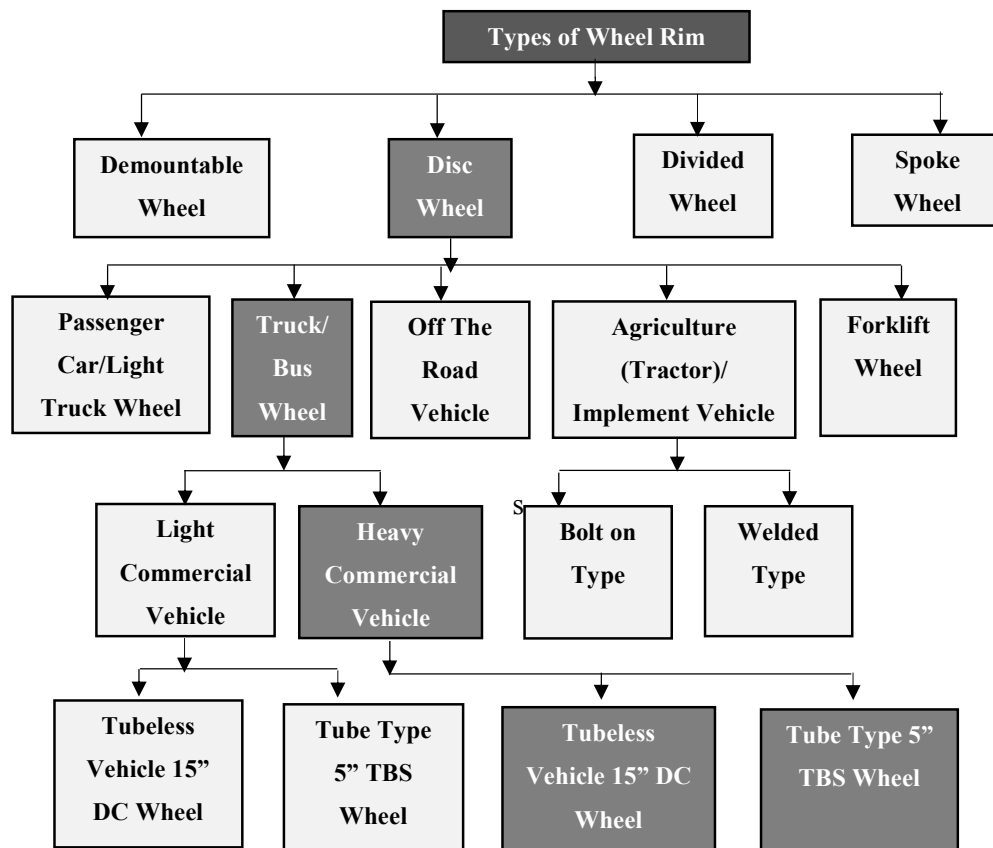
Figure 1.2

The disc is bolted on vehicle hub. These two parts of wheel i.e. Disc and Rim are welded to each other. 1.4.1 Types of Wheel Rim:

Wheels are normally Steel Wheel and Aluminum Wheels (Alloy Wheel). However, types of wheels are same for Steel as well as Aluminum wheels. Aluminum wheels are having limited applications mainly for styling in passenger cars and two wheelers, however popularity is increasing. Below is schematic diagram of Wheel Rim.

Following are the types of wheel rims mainly of Steel wheels. The researcher has chosen Commercial wheel rims of steel only, so it is important to understand types of various wheel rims.

Figure 1.3- Types of Wheel Rim



There are main 4 type of wheels based on application. These 4 types can be sub classified in various other type. Researcher has chosen Disc Wheel, which is most popular and used in Passengers & commercial vehicles. The same is highlighted in above diagram. Researcher has chosen Disc Wheel for Truck and bus application for Heavy commercial vehicles. In commercial vehicles, the focus is on Tube type and Tube less Wheel rims.

1.4.1 Wheel Manufacturers in India:

The Steel wheels in India is currently dominated by 4 key industries namely Wheels India (WIL), Steels Strip Wheels Ltd (SSWL), Kalyani Maxion Wheels (KMW) and Asia Motor Works (AMW). The Capacities of these companies are as follows.

Table 1.9 – Production capacities of Wheel manufacturers.

Company	Location of Production	Passenger Car Wheel Capacity of production Annum (Million Wheels)	Commercial Wheel Rim Capacity of Production /Annum (Million Wheels)
WIL India	Chennai	3.5	1.4
	Pune	3.0	0.6
	Bawal	1.5	
	Pantnagar	1.0	
	Rampur		0.6
KMW India	Pune	4.0	1.0
SSWL India	Chandigarh	5.0	
	Jamshedpur Chennai	2.5	1.0
AMW India	Bhuj (Gujrat)	1.0	1.0

(Source: Data from ACMA (Automotive Component Manufacturers Association))

Analysis: - Actual production varies by 5-10% from capacities mentioned above based on demand in market. Total Passenger Car wheel capacity is around 22Mn, which also cater to small LCV segment having capacity < 1T. Approx. 30% exported from same. For Commercial Vehicle wheel rims total capacity by Indian manufacturers is 5.6Mn and approx. 15% is export in this segment.

After studying Tyres and wheels in details, let's understand selection of market for study. Researcher has chosen South East Asian Countries as market for study.

1.5 South East Asian Countries

India is having exports to various countries and various inter country agreements are helping India to further increase its sale to targeted countries. One complete chapter is dedicated to various export schemes and Free trade agreements in this thesis.

The researcher has chosen S.E. Asian countries because of present FTA (Free Trade Agreement) between India and ASEAN countries. Good opportunities are available for Indian component industry to explore business possibility with these ASEAN countries. One needs to understand countries involved in ASEAN countries, there are total 10 countries part of this. Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. Out of these Major growing countries are Thailand, Malaysia, Indonesia, Philippines, Vietnam and Singapore. Singapore is not producing vehicles, but work as trading hub. Most of the commodities are imported and re-exported to nearby countries.

Table1.10- Vehicle Production 2010

Country	Cars	Commercial vehicles	Total
Indonesia	496,524	205,984	702,508
Malaysia	522,568	45,147	567,715
Thailand	554,387	1,090,126	1,644,513
Vietnam	29,904	6,382	36,286
Philippines	56,128	8,497	65,625

(Source: - Data from OICA (Organization International des Constructeurs D' Automobiles))

If researcher go through vehicle production statistics as above, it is observed that Thailand, Malaysia, Indonesia, Vietnam and Philippines are top 5 bigger and fast growing markets where vehicle production is higher than remaining countries. Researcher has chosen these 3 countries out of this top 5 i.e. Indonesia, Thailand and Vietnam for Survey. It is important to understand Economy, culture and various import policies for these countries. Hence, in next chapter Economy and Policies related to India, Thailand, Indonesia and Vietnam are studied in details.

Summary

India is a growing market. Indian manufacturers are focusing on more and more exports to take advantage of globalization. Indian Automobile Industry is no exception to this. Along with OEM, Indian Auto Component Industry is also growing and focusing on exports due to its technological and qualitative advantage. Auto component industry is growing with CAGR of 11% and Export is growing with CAGR of 29%.

Lot of components are being imported and exported from India. There are 20 major families of Auto components being exported. Researcher has chosen Tyre and Wheel family for study. Both industries i.e. tyre and wheel industries are growing and having good potential for exports. Researcher has focused on Commercial Vehicle Tyres and Wheel rims.

South East Asian market is one of the growing market and having lot of advantages for trade with India due to recent Free Trade Agreement. Researcher has chosen this area and three major countries like Thailand, Indonesia and Vietnam for study.

After the introduction about Indian Automobile Component Industry, Wheel rim, Tyres and selected South East Asian countries it is important to understand economy, culture, other business parameters, market of India as well as selected countries like Thailand, Vietnam and Indonesia. In next chapter, these parameters are studied in detail.

CHAPTER-2

INTRODUCTION TO ECONOMIES OF INDIA, THAILAND, INDONESIA AND VIETNAM

2.1. India – A Vibrant Economy



Indian Economy is known as the seventh-biggest in the world by Gross Domestic Product (GDP) and also at 3rd position by Purchasing power parity (PPP). India is one of the G-20 significant economies and a part of BRICS. India is also the fifteenth largest exporter and the twelfth largest importer in world. Economy development rate slowed down to around 5.0% for the year 2012–13 financial year in comparison to 6.2% in the past financial year. India's GDP developed by an astonishing 9.3% in 2010–11. However unfortunately the growth rate reduced to half in just 3 years' period. The government of India tried hard to regain the GDP in the range of 7-8%. GDP reached to 7.5% in 2015.

2.1.1. Economic Overview

A) Post-liberalization period (since 1991) –

Gross domestic product (GDP) of India has increased quickly since 1991.

India adopted liberal and free-market standards in 1991 and adopted a policy to change its economy suitable for international trading under the direction of Mr. Manmohan Singh, Finance Minister from 1991 and 1996, and already under the administration of Late Mr. P.V. Narasimha Rao, Prime Minister from 1991 to 1996. India's significant exchanging partner the Soviet Union, which collapsed, and the Gulf War, which brought on a spike in oil costs, brought crises situation for India. This ended up confronting the possibility of defaulting on its loan taken. India requested a \$1.8 billion bailout advance from the International Monetary Fund (IMF), which consequently requested for changes or reform.

Then Prime Minister Mr. Narasimha Rao, alongside his Finance Minister Mr. Manmohan Singh, started the financial liberalization of 1991. The changes got rid of the License Raj, diminished taxes and financing costs and finished numerous open

imposing business models, permitting programmed endorsement of remote direct interest in numerous segments. By the turn of the 21st century, India had advanced towards a free-showcase economy, with a considerable diminishment in state control of the economy and expanded money related liberalization. This has been joined by expansions in future, proficiency rates and sustenance security, urban inhabitants have profited more than agricultural occupants.

B) India GDP Annual Growth Rate

Gross domestic product is characterized by the Organization for Economic Co-operation and Development (OECD) as a total measure of generation equivalent to the entirety of the gross qualities included of all inhabitant, institutional units occupied with creation (in addition to any charges, and short any endowments, on items excluded in the estimation of their yields). Gross domestic product appraisals are ordinarily used to quantify the monetary execution of an entire nation or locale, however can likewise gauge the relative commitment of an industry area.

Therefore, $Y = C + I + G + (X - M)$,

Here,

Y= GDP; C= sum of consumption; I= investment

G= government spending; (X-M) = net exports

C) World's 7th largest economy based on nominal GDP in 2015:

Table No. 2.1: Indian GDP Annual Growth Rate

Sr. No.	Period	Annual Growth Rate
1	July 2012	4.5 to 6.3
2	Jan. 2013	5 to 4.6
3	Jul 2013	7 to 7.5
4	Jan 2014	6.4 to 6.7
5	Jul 2014	6.7 to 8.4
6	Jan 2015	6.6 to 7.5

(Source: Data from Ministry of Statistics and programme implementation (MOSPI)

(www.tradeingeconomics.com, n.d.)

Analysis of Indian Economy-

- India's GDP has always remained positive and in the range of 5-8%, which is a really good sign of any developing growing country.
- India is World's 3rd largest economy in respect of PPP (US\$ 5.1 trillion in 2013), after USA and China; expected to cross US\$ 6 trillion by 2016.
- Recovery in real GDP growth; estimated growth rate of 5.4% - 5.9% in FY 2015 [Union Budget 2014-15], however achieved 7.5%.
- The demographic profile in the age group of 15 to 59 years is 64.8% of the India's total population.
- Stable forex reserves, increased at a CAGR of 7.9% over FY 2005 to FY 2014.
- Ranks 3rd among the most favoured investment destinations in the world (behind China & USA).

Japanese Manufacturing companies having operation overseas their preference for destination India is as follows: -

- Second to China as the most encouraging nation for interest in the long term.
- Second to Indonesia as the most promising country for investment in the medium term.

D) India's Top Exports Commodities:-

After understanding economic reform of India and GDP, let's understand various exports made by India to various countries. As briefed earlier India is 5th largest exporter in world. India's export base is really wide and vast. Variety of commodities are getting exported from India like various Engineering and Automobile goods, Textile, Petroleum products, leather products etc. Below data is various commodities being exported from India and its contribution in overall exports.

Following table showing Top 10 commodities and their % of export.

Table No. 2.2: India's Exports Composition (2013-14)

Sr. No.	Materials	Exports (%)
1	Engineering goods	20%
2	Textiles	20%
3	Chemicals and related Products	14%
4	Gems and Jewelry	13%
5	Agri and allied prdts	12%
6	Petroleum products	10%
7	Others	5%
8	Ores and minerals	2%
9	Electronics goods	2%
10	Leather and others	2%

(Source: Data from Ministry of Commerce and Industry, Government of India)

Analysis: - India is leading exporter in various commodities like Engineering goods & Textile (20% each) followed by Chemicals (14%), Gems & Jewellery (13%), Agri Products (12%) Petro products (20%), however also present in small portion in Electronic goods & leather.

After understanding exports product wise, let's understand export destination wise.

Following tables are showing Export made by India to various region.

Table No. 2.3: India's Export Destinations (2013-14)

Sr. No.	Sources	Export 2013-14 (in %)
1	Asia	50%
2	Europe	19%
3	North America	13%
4	Africa	10%
5	LAC	4%
6	Other	3%
7	CIS and Baltics	1%

(Source: Data from Ministry of Commerce and Industry, Government of India)

Analysis- The above table shows the movements of export towards the Southern Countries. Share of Asia, Africa and other regions grew from 54% in 2003-04 to 64% in 2003-14; of this, share of Asia grew from 46% to 50% during this period. So export to Asian countries is increasing which is a good sign for automobile Industry also to focus on Asian countries as their potential export market.

Below table is focusing export done by India to top 10 countries in US\$ Bn terms. Let's understand which are those countries and amount of export done in value terms.

Table No. 2.4: Total Export – Top 10 countries (2013-14)

Sr. No.	Country	Export (US\$ bn)
1	U.S.A.	39.2
2	U.A.E.	30.5
3	China	14.9
4	Hong Kong	12.7
5	Singapore	12.5
6	Saudi Arabia	12.2
7	U.K.	9.8
8	Netherland	8
9	Germany	7.5
10	Japan	6.8

(Source: Data from Ministry of Commerce and Industry, Government of India)

Analysis- In 2013-14 total export from India was US\$ 312.6 Bn. From the table it can be interpreted that U.S.A. (39.2 US\$ bn) and U.A.E. (30.5 US\$ bn) are the Top Export countries. However though ranked on 9th and 10th, but good export to countries like Germany (7.5 US\$ bn) and Japan (6.8US\$ bn) in (FY 2014).

D) India's Top Import Commodities:-

After understanding Export made to various countries & region, let's understand various imports done by India from various countries.

India is still depended largely on Imports from various countries. Main commodities are Crude oil, Jewellery, Gold, Electronics etc. Following table showing Imports made by India based on top 10 commodities.

Table No. 2.5: India's Import Composition (2013-2014)

Sr. No.	Materials	Top Imports (% wise)
1	Edible Oil	02%
2	Ores	03%
3	Transport Equipment	03%
4	Coal	04%
5	Chemicals and Plastics	06%
6	Machinery	05%
7	Jewelry Stones	05%
8	Gold	06%
9	Electronics	07%
10	Others	22%
11	Crude	37%

(Source: Data of Ministry of Commerce and Industry, Government of India)

Analysis: - India is also major Importer of various products major import is Crude oil (37%) followed by Electronics (7%) & Gold (6%) however also importing Edible oil, Coal, Ores in the range of 2-3 % of total import.

After understanding imports product wise, let's understand import destination wise.

Following tables are showing Import done by India from various region in USD Bn from various countries by India.

Table No. 2.6: India's Import Sources (2013-14)

Sr. No.	Sources	Import
1	Asia	61%
2	Europe	16%
3	Africa	8%
4	LAC	7%
5	North America	5%
6	CIS and Baltics	2%
7	Others	1%

(Source: Data from Ministry of Commerce and Industry, Government of India)

Analysis- From the table it can be concluded that the India's imports are moving towards the Southern countries, namely Asia, Africa and LAC. Share of Asia, Africa and LAC regions grew rapidly from 40% in 2003-04 to 76% in 2013-14; of this, share of Asia region grew from 35% to 61% during this period. As explained in table no 2.5, major import is crude oil from Middle East Asian countries.

In above table, Imports from various regions are explained, now following tables are explaining Imports done from various countries.

Table 2.7: Total Import- 10 Countries (2013-14)

S. No.	Country	Import (US\$ bn)
1	China	51
2	Saudi Arabia	36.5
3	U.A.E.	29.1
4	U.S.A.	22.3
5	Switzerland	19.4
6	Iraq	18.5
7	Kuwait	17.2
8	Qatar	15.7
9	Indonesia	14.9
10	Nigeria	14.3

(Source: Ministry of Commerce and Industry, Government of India)

Analysis- Imports are still higher than the export and there is negative balance of trade. India's import was US\$ Bn 450 in 2014. From the table it can be interpreted that China (US\$ Bn 51) and Saudi Arabia (US\$ Bn 36.5) are top import destinations, this is mainly because of oil import and cheap imports from China. However good imports of some natural rubber from countries like Indonesia (US\$ Bn 14.9).

D) Balance of Trades:-

After understanding Export and Imports of India, let's understand the balance of Trade. Balance of trade is nothing but difference between Export and Import. If Import is higher than export, it shows negative balance of trade or trade deficit and vice-versa. Following table is showing Export and Import of India.

Table No. 2.8: Balance of Trade (Import-Export)

Sr. No.	Period	Export (Bn \$)	Import (Bn \$)	Balance of Trade
1	2008-2009	185.3	303.7	(118.4)
2	2009-2010	178.8	288.4	(109.6)
3	2010-2011	251.1	369.8	(118.7)
4	2011-2012	306	489.3	(183.3)
5	2012-2013	300.4	490.7	(190.3)
6	2013-2014	312.6	450.1	(137.5)

(Source: Data from Ministry of Commerce and Industry, Government of India)

Analysis

- Still the Imports from India are more than Exports from India. Which is trade deficit and cause of concern.
- The Total merchandise trade of India is increased from US\$ 489 bn in FY 2007 to US\$ 763 bn in FY 2014.
- Trade deficit fall is to US\$ 138 billion in FY 2014 from US\$ 190 billion in FY 2013, which is a good sign.
- Certain policy measures in FY 2014, lead to decline in imports.
- India's merchandise trade to GDP ratio increased. It was 26.6% in 2004-05 and became 39.3% in 2013-14.

- From 2004-05 Export to GDP ratio increased from 11.8% to 17% in 2013-14.
- In 2013-14 Services trade to GDP ratio increased to 12.2% from 9.8% in 2004-05. In 2013-14 Services export to GDP ratio stood at 8.1%.

2.1.2. India's Economic Ranking - Doing Business

Let's understand India's ranking in Doing Business, as it is important Index followed by worldwide to understand ease of doing business in particular country.

The Doing Business provides objective data to calculate business regulations and their impact across various economies at the considerable and region wise levels. By collection and analysis of the data it compares business regulation environments across various countries, it encourages economies to compete towards more efficient regulation.

Table No. 2.9: Doing business 2016 ranking

DOING BUSINESS 2016 RANK	DOING BUSINESS 2015 RANK	CHANGE IN RANK
130	134	4

(Source: <http://www.doingbusiness.org/data/exploreeconomies/india>)

Comment- India ranks 130 in 2016 ranking after jumping 4 ranks from previous year, earlier rank was 134, so good actions taken by government to improve the ranking. However still rank of 130 is cause of concern & need drastic improvements in compare to other Asian countries.

2.1.3. Current Status of Indian Economy

Economic Survey 2014-15: Economy of India will develop at a rate of more than 8 % for in the 2015-16 financial year, while purchaser inflation will drop to somewhere around 5 and 5.5, as per the Economic Survey report, which was tabled at parliament by Finance Minister Mr. Arun Jaitley.

In the review, a report on the condition of Indian economy, gauge the economy would develop by 8.1-8.5 for each year under another estimation strategy that makes India the world's top-developing enormous economy. The report likewise showed that India can expand open ventures and still hit its acquiring targets, while saying the nation expected to hold fast to its medium-term financial shortfall focus of 3 percent of total national output.

In response to this Indian economy grown @ 7% in 2014 by approx. 7.5% in 2015. Even in 2016 also the economy is growing in the range of 7.2-7.5%.

(Source:<http://www.financialexpress.com/article/economy/live-economic-survey-fm-arun-jaitley-to-table-report-at-parliament-around-12-noon-today/48252/>)

Summary of Indian Economy

Indian has adopted liberalised and free economy in 1991 and Indian GDP started increasing. Indian Economy has shown good growth @ 5-6% in past decade and also performing @ 7-8% rate presently, which is a really good sign for overall growth of country.

India is also continuously improving its exports. Export increased for US\$ Bn 185 in 2008-09 to US\$ 312.6 in 2013-14. Major export is of engineering goods @ 20%. Good export in Asia region as well as USA is one of the top country for export from India. India is still depending upon lot of Imports mainly for Crude oil 37%, hence Imports are more than exports so trade deficit. Import increases from US\$ 303 Bn to US\$ Bn 450. However, trade deficit which was US\$ Bn 190 has reduced to US\$ Bn 130, which is good sign. However, need to focus on exports to reduce trade deficit or making it.

Doing business rank for India also improved by 4 ranks to 130 no in 2016. However, need to work more to improve ranking as ranking of other Asian countries like Thailand, Vietnam, Indonesia is better than India.

Overall Indian economy is doing good and growing. Exports and Imports and overall trade is showing positive growth. After understanding Indian Economy, below economy of other selected countries i.e. Thailand, Indonesia, Vietnam are studied in details.

2.2. The Kingdom of Thailand



Capital: Bangkok

Area: 513,120 km² (51st), 198,115 sq meter

Population: estimated at 67.96 million in 2015

Official language: Thai

Currency: Baht

GDP growth rate: 2.9% (2015 est.)

Inflation rate: 2.4%

GDP (Billion current PPP US \$): \$ 985.5 billion (2014 est.)

Five major export destinations: China (14%), Japan (10%), United States (9.7%), Indonesia (5.2%), and Malaysia (5.0%).

Five major import sources: Japan (22%), China (18%), Malaysia (6.3%), United States (5.3%), and South Korea (4.5%).

2.2.1. Economy Overview

Thailand is known as the second largest economy out of 10-nation ASEAN. Thailand's economic growth slowed drastically to 0.1% in the year 2011. This is the result of severe flooding that hit the country in July 2011 which lasted for about six months. GDP started decreasing year-on-year (Y-O-Y) in the fourth quarter of 2011, resulting in the decrease in annual growth by 3.7 percent. These nation wise floods came at a time when the economy was already struggling from the disruptions of electronics supply chain as a result of the 3-11 earthquakes in Japan. Economic activities were getting back too normal after floods. It was estimated that the floods caused economic losses amounting to US\$45 billion to Thailand. Thailand main export includes computers and parts, automobiles and parts, integrated circuits. Thailand's major trading partners are The US, Japan and China. The earthquake and tsunami that struck Japan in March 2011 caused disruption to Thailand's external sector, especially in relation to auto motives and electronics.

The economy bounced back strongly in 2013 as interest rates are low. Political disturbances again hurt the economy in the second half 2013. Overall demand has

slowed down market also shown slower movement which pulls GDP to 2.9%. Passenger Car vehicle sales down by 5.9% in 2012 year after a duty discount terminated for first-time purchasers of locally made vehicles. These pressures created settled capital speculation, to fall steeply in the second half and decay by 1.9% throughout the year. Log jam in import volumes added to higher net fares, which included to GDP the interest side without precedent for a long time. Vehicles production which were around 68.3% in 2012 after expense refund after the surges, ascended by 0.1% in 2013.

Because of low swelling and feeble monetary development, the Bank of Thailand, the national bank, brought down its arrangement loan fee by 50 points to 2.25% in 2013. Cash supply (M2) development eased back to 7.3%, and loan for development to the private area facilitated to 12.4% as residential interest weakened and banks turned out to be more stringent about loaning. After anti-government issues became sensitive in November 2013, the administration broke up the parliament in December and booked national election in February.

(Source- Asian Development outlook 2014)

2.2.2. Doing Business

Comparing various economies at the subnational and regional levels the Doing Business is providing objective data for measures of business regulations and their enforcement in various countries. By collection and analysis of the data it compares business regulation environments across economies, it encourages economies to compete towards more efficient regulation.

This analysis is done basis on various business parameters for e.g. Starting of Business, Getting credit, ease in trading overseas etc. This agency will study all this business parameters in various countries & as per the ease as well as hurdles for these parameters points are assigned & then ranking is given based on overall points secured by that country. Following is details about Thailand.

Region: East Asia and Pacific

Population: 69,518,555

DB2015 rank: 26

Change in rank: 2

Income category: Upper middle income

GNI per capita (US\$): 5370

DB2014 rank: 28

Business Parameters

Following table shows the ranking of selected important business perspectives with its procedures, number of days, etc.

Table No. 2.10: Business Parameters Thailand

Parameters	Rank	Business Parameters	
Ease of doing business	26	Overall Ranking	
Starting a Business		Procedures (number)	4
	91	Duration (days)	27.5
		Cost (% GNI per capita)	6.7
Dealing with constructing permits	14	Procedures (number)	8
		Duration (days)	157.0
		Cost (% of income per capita)	8.3
Getting electricity	12	Procedures (number)	4
		Duration (days)	35
		Cost (% of income per capita)	67.3
Registering Property	29	Procedures (number)	2
		Duration (days)	2.0
		Cost (% of property value)	6.3
Getting Credit	73	Legal Rights Index	5
		Credit Information Index	5
		Public registry coverage (% adults)	0.0
		Private bureau coverage (% adults)	49.2
Trading Across Borders	24	Documents for export (number)	5
		Time for export (days)	14
		Cost to export (US\$ per container)	595
		Documents for import (number)	5
		Time for import (days)	13
		Cost to import (US\$ per container)	760

(Source: Ease of doing business 2015, Doing Business website at www.doingbusiness.org)

Analysis-

Before starting of business, it is important to understand Business Ranking of that particular country, as it gives idea about various business parameter. In case of Thailand the overall rank is 26, which has improved by 2 points from previous year, which is showing good country to do business and business policies are making business easy. Even after studying all other parameters like starting of business, which covers no of procedures required, no of days required, interest rate which is comparatively better also Thailand is very good in getting electricity and trading across boarder as per above ranking.

2.2.3. Industrial Policies

Policies varies from country to country and that also gives impact while trading with that country. Some countries are having liberal policies while some countries may restrict certain products. Let's understand various industrial policies adopted by Thailand.

2.2.3.1 Industrial Policy and Industrial Upgrading for the Automotive Industry

Thailand government is adopting various policies to support Automotive Industry. Following are some of the measures taken by Thailand government regarding policies under WTO rules, various import policies, Import substitution, Non-Tariff barriers like import licensing, custom barriers etc.

A) Industrial Policy under WTO Trade Rules: With diligent work, speculation, and government motivators, Thailand's car industry is driven towards quickened development, utilizing more than 300,000 individuals and creating 12% of the national GDP. Thailand's industry has pulled in the greater part of the world's significant automakers, constructing agents, and parts and segment producers, and numerous are arranging further venture.

Automotive trades totalled 775,652 units in 2008. With export to 130 nations, Thailand is world's biggest maker of one-ton pickup trucks and the seventh-biggest car exporter by and large. It is the top maker in all of Southeast Asia, with measures set up for development.

B) Import Policies: Thailand's high duties remain as one of the major deterrent to market access in numerous parts. In 2009 Thailand's MFN duty rate was 10.4%, ad valorem tariffs are around 50-80 percent, and the promotion valorem likeness some particular taxes (charged for the most part on rural items) are considerably higher. Around 33% of Thailand's MFN tax plan includes an obligation under 5 percent, and very nearly 20 percent of tariff lines enter Thailand obligation free.

Thailand has bound around 70 percent of its tax lines on modern items. The most elevated tax rates apply to imports contending with privately created products, including vehicles and car parts, bikes, hamburger, pork, poultry, tea, wine and spirits, and materials and dress.

C) Non-tariff Barriers (NTBs):

Quantitative Restrictions and Import Licensing: Import licenses are required for at least 32 categories of items, which includes many raw materials, petrol, industrial goods, etc. Imports of used motorcycle parts and gaming machines are prohibited. Import licenses for utilized automobile and utilized bikes are given for re-trade or for individual, non-business use. Imports of certain minerals, arms and ammunition, and art objects require special permits from the relevant ministries.

Taxation: Thailand's tax system is a complex one, raising concerns among foreign businesses. Excise duty on automobiles in Thailand depend on vehicle attributes, for example, engine size weight and wheelbase. In July 2004, Thailand re-examined its excise charge structure, however the assessment computation is still intricate and intensely supports locally produced vehicles. Excise charges on passenger cars vehicles are from 30 percent to 50 percent, for pickup trucks tax is just 3%. Which help the people to go for more and more pick up vehicles and there is a growth of almost 50% in pick up market.

Customs Barriers: The United States keeps on having genuine worries about the absence of straight forwardness of the Thai traditions administration and the critical optional power practiced by Customs Department authorities. The Customs Department Director General holds the power and carefulness to subjectively build the traditions estimation of imports.

D) Import Substitution: Till 1960 the main business of automotive industry in Thailand is repair of vehicles. CBU vehicles all being imported and assembled in Thailand. The nation's first industrial policy given by the leading board of investment as the 'industrial investment promotion act' in 1960 later re-examined in 1962. This plan is designed to provide various incentives for investors, incentives like temporary corporate tax exemptions; reduction in tariff and in certain cases offering exemptions on imports of required inputs and machinery; also reduction in export duty. To support domestic production initially CKD rates were 30% for passenger vehicles, 20% for commercial vehicles. Six major foreign automobile companies had established JVs with Thai capital. During which a number of vehicles were made and production rose from 525 units in 1961 to over 10,000 units in 1965.

E) Trade Policy: Policies are formed to fulfil WTO commitments, Thailand has reduced tariff in January 2005 by cutting import duties on several items including raw materials which reduced from 7% to 1%, intermediate products from 12% to 5% and finished products to 10%. Thailand, individual from ASEAN, consented to an arrangement with China to set up China-ASEAN Free Trade Area (CAFTA) in 2010. A critical stride towards setting up CAFTA came in November 2004, when China and ASEAN made the Agreement on Trade in Goods (TIG) to evacuate taxes on a scope of agrarian and modern items. The TIG assentation produced results from July 2005 covering levy lines speaking to more than 95% of China-ASEAN exchange. CAFTA came into power in January 2010, and more than 90% of items exchanged amongst China and Thailand are currently tax free.

In November 2007, Thailand and Japan consented to the facilitated commerce arrangement (FTA). This permits 97% of Japanese export to Thailand and 92% of Thailand's export to Japan to be without duty inside 10 years.

Likewise, Thailand has FTAs with China, Australia, Laos, Peru and New Zealand. Also, Thailand has set out on transactions of FTAs with a few economies, including The US, Korea, India, Pakistan, Chile and the EU.

2.2.3.2 The Introduction of Localization Policy

Despite the fact that the Ministry of Industry (MOI) built up the Automobile Development Committee in 1969 and attempted to encourage local production of parts by giving special incentives to certain parts like radiators, batteries etc. The Federation

of Thai Industries (FTI) was not happy with this approach of such offering and incentives. As per their dependency on CKD parts will not help Thailand industry to develop long term industrial strategy. Issues like trade balance and export payments will surface.

In light of these issues, the government presented Thailand's automotive industrial policy in 1971, comprising various measures like to achieve economies of scale setting limits on the number of models and series. To insist LC requirements upto 25%. Investment of 0.2 Mn baht and minimum production capacity etc.

A) Optimism and Opportunity:

Thailand's automotive industry is looking to grow and develop in near future. Support from free-trade agreements (FTAs) with countries such as Japan, China, South Korea, Australia, New Zealand and India, and the prospect of rising exports to ASEAN member nations. The Thai government is also offering support in the form of tax incentives and various other measures, making it open ground for investors. In June 2009 the Thailand board of investment extended its car motivating force plan to cover cars that have high advances that are new to Thailand such as hybrid drive, brake energy regeneration and electronic stability control. The BOI's new policy is made for attraction of international automakers looking for relocation of production facilities overseas, providing new incentives, in which it includes corporate income tax holidays between 5 and 7 years, for which projects must involve an investment of at least 10 billion baht. Thailand is a newly developed attractive base for automotive parts production. More than 3,000 parts and components of vehicle are still exported overseas. Open field exists for foreign suppliers to manufacture fuel injection pumps, transmissions, injection nozzles, anti-lock braking systems, and central locking systems, among numerous other products. Thailand's exports of auto parts were more than four times between 2003 and 2008. Exported auto parts valued by US \$4.6 billion in 2008. Growth will increase as the government is working to put Thailand into the top 10 automotive producers.

2.2.4. Automobile Industry and Vehicle Manufacturers in Thailand

Below the details provided regarding Automobile Industry in Thailand as well as various vehicle manufacturers in Thailand.

2.2.4.1 Automobile Industry

Thailand's automotive industry is continuously developing and progressing with help of strong support of public and private sectors. Thailand is the automotive hub of ASEAN, and famous by the name "Detroit of the East". It is having largest automotive production in ASEAN countries and on no 9 position globally.

In 2013, the automotive sector contributed to 12% to overall GDP, become Thailand's second largest export industry. Thailand launched industry-friendly policies focused on investment privileges and excise-tax benefits, environment friendliness, and development of workforce. These factors help it to be the best hub for eco-car and one-ton pickup producers.

In the last two years the Thailand automotive industry is changing its position in the world automotive market and known as competitor rather than trade partner as per earlier strategy. There are four key factors that give efficient development of Thailand automotive sector as:

- Government policy that creates incentives and promote investments and domestic market expansion.
- Enhancement of capacity of green technology.
- Improvement for parts manufacturers increase in domestic value.
- Improved human resource development.

Thailand Total Vehicle Sales

Let's understand vehicle sales in Thailand and also share of business of various manufacturers.

Table No. 2.11: Production statistics (Thailand market)

Year	Cars	Commercial vehicles	Total	% growth change
2011	537587	919811	1457798	-11.4%
2012	945100	1484042	2429142	66.6%
2013	1071076	1385981	2457057	1.1%
2014	742678	1137329	1880007	-23.5%

(Source: <http://www.oica.net/category/production-statistics/>)

Analysis-There is positive growth in vehicle production from 2012 and 2013, however from 2013 to 2014 there has been a drop in production by almost 25%. This is mainly due to political instability in Thailand market during this period.

Also following table is showing major vehicle manufacturers in Thailand market and their share of business!!

Table No. 2.12: Truck Sales (Thailand market)

Manufactures	2009 Market	2010 Market	2011 Market	2012 Market
	13200	13900	14900	21300
Hino	46%	50%	46%	44%
Isuzu	36%	37%	43%	45%
M'Fuso	7%	4%	4%	6%
N'Diesel	5%	4%	-	-
Volvo	-	-	4%	3%
Other	6%	5%	3%	2%

(Source: <http://www.oica.net/category/production-statistics/>)

Analysis- Hino and Isuzu share a very competitive market share and dominates others by big margins. Infact Isuzu has crossed Hino in 2012 and became No 1 in Truck sales also.

2.2.4.2 Major Automotive manufacturers

After understanding Automobile market in Thailand & total vehicle sell, below are the brief provided regarding vehicles manufacturers in Thailand.

➤ **Isuzu**

Isuzu is one of the leading manufacturer in Thailand market, having almost 50% market share. Leading manufacturer for 1 T Pick up and also Trucks. It has been set up in Thailand since 1963 by the Isuzu Assembling Plant. The organization name was changed to "Isuzu Motors Co. (Thailand)" in 1966, which assembled their first pickup trucks in 1974. The Thai-just Isuzu Vega SUV was worked from 1998 until 2002.

➤ **HINO Motors**

Hino is second largest vehicle producer after Isuzu. However, they are the leader in some segment like big truck etc... In 1964 Thai Hino Industry Co. Ltd was the first manufacturing plant, at Samrong. Quality is the first priority in Hino Motors Manufacturing (Thailand) Ltd. Every vehicle that is produced with the same standard of technology and quality given by Hino Motors, Ltd.

➤ **Ford Motors**

Thai Motor Co. established in 1947 with main business is to import Fords vehicle. Later it started of British Ford in 1961, in a joint association with Anglo-Thai Motor. The firm was renamed Ford Thailand in 1973, despite the fact that Ford pulled back in 1976. In 1995 Ford and Mazda opened Auto Alliance Thailand (AAT), a joint endeavour which started delivering Mazda B-Series-based pickup trucks in May 1998,

➤ **General Motors**

With the intention of supplying the local ASEAN markets, General Motors started the production of the Chevrolet Opel in Thailand. After the 1997 market collapse and financial crisis generated in Asian markets. GM changed their mission and by 2002, 90 percent of the production of General Motors' Rayong plant was being exported, in Europe and Chile.

➤ **Honda**

Honda started assembling its vehicle in Thailand from 1984, by an organization called Banghan General. Banghan proceeded with it until 2000, despite the fact that Honda framed their own creation by Honda Cars Manufacturing Thailand in 1992. Honda, then changed its name to Honda Automobile (Thailand) in 2000. Later Honda started export to Japan market as well.

➤ **Mazda**

Mazda started in Thailand with three wheelers commercial in 1950. In 1974 "Sukosol and Mazda Motor Industry" was formed and opened Mazda's first CKD plant in 1975. In 1998 the Auto Alliance Thailand (AAT, framed in 1995) vehicles get assembly plant was opened with JV between Ford Motor Company and Mazda Motor Corporation in Rayong territory, Thailand. AAT assembles pickup trucks and SUVs principally for the South-East Asian business sector, with exports to other markets including Europe.

➤ **Mercedes-Benz**

Mercedes-Benz established in 1960 in Thailand, where they formed a plant for the manufacture of utility vehicles (operational in 1961) as a first step. Passenger car production started in 1979. Mercedes are built by the Thonburi Automotive Assembly Plant Company. In recent year Mercedes Benz started producing the A-class to the C, E, and S-classes.

➤ **Mitsubishi**

Mitsubishi Motors (Thailand) (MMTh) is having headquartered in Pathumthani, in Bangkok city. Their main product is the Mitsubishi Triton, pickup truck, which is produced in Laem Chabang and exported to more than 140 global markets. Mitsubishi had made Thailand their global hub for pickup trucks production in 1995, after becoming Thailand's first vehicle exporter in 1988.

➤ **Nissan**

Nissan was the primary Japanese maker to manufacture a plant in Thailand, in a 1962 joint endeavour with Siam Motors. Be that as it may, they just assembled pickup trucks. Nissan now fabricates different autos and the D21/Navarra pickup trucks.

➤ **Tata**

Honburi Automotive Assembly Plant Company that builds Mercedes-Benz vehicles in Thailand. It has a 30% stake in a joint venture producing Indian Tata Motors automobiles since 2007.

➤ **Thai Rung**

The main Thai vehicles producer is Thai Rung; autos are fabricated by Thai Rung Union Car Public Co. Ltd. (TRU). The organization was in 1967 in Bangkok, Thailand. TRU's business comprises from item outline and advancement to car parts fabricating, modern gear producing, auto mechanical production systems, to money related business.

➤ **Toyota**

Toyota Motor Thailand Co. (TMT) established in 1962. By 1979 Toyota started manufacturing squeezed body parts in Thailand, and in 1989 they started making motors. The Soluna has likewise been sent out to other ASEAN nations. In 2005, Toyota built up an innovative work focus (R&D Center) in Thailand. Toyota as of now manufactures an extensive variety of autos in Thailand, from the Yaris to the Fortuner SUV.

➤ **Volvo**

Volvo through the Thai Swedish Assembly Co, Ltd. formed in 1976 have presence in its market. In addition to various Volvo cars, Thai Swedish Assembly also built the Land Rover Freelancer from 2001 until 2005.

➤ **VW**

VW to set up a factory in the Eastern Seaboard area has applied for the Eco Car Phase II program, will invest 1 Billion Euros latest until 2019.

➤ **Yontrakit Motors**

Yontrakit, an assembler who started their work in 1972 are currently producing Peugeot, Citroën, and Volkswagen cars.

2.2.5. Exhibitions related to automobile- Truck and Bus:

It is also important to understand various exhibitions related to Automobile Industry held in Thailand. Different exhibitions related to Truck & Bus are there in Thailand.

Following are few of them as a guideline: -

- **International commercial and special purpose vehicles exhibition** for commercial and special purpose vehicles. Generally held at the BITEC - Bangkok International Trade and Exhibition Centre for approximately 3 days, where more than 100 players demonstrate their latest models and services to 15000 visitors. The vehicles showcased were trucks, vans and buses of all purposes. The individual car parts and electronic components as well as car chemicals are also shown. In addition to the exhibition itself the fair also comes up with a comprehensive framework programme consisting of seminars, forums, test drives and internal competitions.
- **Thailand International Truck Show**, a two-day event held at the IMPACT Exhibition and Convention Centre, Muang Thong Thani in Nonthaburi, Thailand. This event exhibits products like truck chassis, truck based products, and services, truck related machines, and tools associated with this field.
- **APN Plastics in Automotive Conference and Exhibition**. This event exhibits products like automotive products, plastic products, plastic processor, machinery based products, to that of material providers associated with this field.
- **Auto Aftermarket Industry and Tuning Trade Fair Bangkok**, a three-day event at the IMPACT Exhibition centre in Bangkok, Thailand. This event exhibits products from Automotive, Industrial Products industries.
- A fair named **Thailand Auto Parts and Accessories (TAPA)** is held for foreign players. It is an excellent way for generation of business, exposure to automobile fraternity, cross-fertilization of ideas.

- A 4-day occasion named **Subcon Thailand** hold at the Bangkok international trade exhibition centre in Bangkok. This event exhibits products ranging from Automotive, Electronics and Electrical Goods, Plant, Machinery and Equipment, Manufacturing, Fabrication, Repair and Maintenance industries.

(Source-: <http://www.tradefairdates.com/Automotive-Parts-Accessories-Trade-Shows-Thailand-FSL32-L213-S1.html>)

(Source-: <http://10times.com/thailand-international-truck-show>)

Summary of Thailand Economy

Thailand is also one of growing country, however facing political instability affecting their growth rate. Thailand has adopted various policies as per the guidelines of WTO. The market is more liberalised and open. Thailand is promoting localisation policy i.e. concession in duty if imported from ASEAN countries. Thailand also signed various free trade agreement as a part of ASEAN countries as well as a separate country like with China, India which help to improve trade between countries.

2015 ranking of Ease of Doing business is 26, improved by 2 points from 2014, which is really good sign & will help Thailand to attract more and more business. Another business parameter ranking is also impressive.

For Automobile Industry concern, Thailand is known as 'Detroit of East', being one of the largest vehicle producer in Asian countries & at 9th position globally. Thailand is also known as highest producer of 1T pick-ups and having major vehicle manufacturers present in country.

After studying economy of Thailand, researcher has conducted same study on next selected country i.e. Indonesia!!

2.3. The Republic of Indonesia



Capital: Jakarta

Area: 1,904,569 km² (15th)

Population: 255,963,202 (estimated 2014) (4th)

Official language(s): Indonesian

Currency: Rupiah (Rp) (IDR)

GDP growth rate: 5.3% (estimated 2014)

Inflation rate: 6.42%

GDP (Billion current PPP US\$): \$ 2,676.1 (estimated 2014)

Five major export destinations:

Japan (15%), China (12%), Singapore (9.1%), United States (8.4%), and South Korea (7.2%)

Five major import sources: China (16%), Singapore (14%), Japan (11%), South Korea (6.9%), and Malaysia (6.1%).

2.3.1. Economic Overview

Indonesia is one of the major destination for foreign direct investment (FDI) because of fast growing economy. Previously it was overlooked because of other countries in Asia like India and China, but Indonesia is difficult to ignore, as it is country with lot of natural resources.

Natural Resources- Indonesia is very rich with diverse natural resources and is positioned in between such markets from which there is high demand for these natural resources. It is the only country which is a member OPEC from the South East Asian countries and it is also a major liquid natural gas (LNG) exporter. In the field of energy and mining, Indonesia is the world's leading thermal coal, tin exporter and it is also rich in various deposits of metals including gold, silver and copper.

Large and Youthful Domestic Market- Indonesia is also having advantage in term of its young population. Almost 50% population are young and open to new technology. They are also having low dependency.

As per World Bank report, in future Indonesia faces sustainability of environmental challenge due to depletion of Natural resources, Climate change, poor sanitation and indoor-outdoor pollution.

(Source -: <http://www.worldbank.org/en/news/press-release/2009/11/18/new-environmental-analysis-sustainable-indonesia>)

Indonesia's economy is still growing even after the huge global economic crisis and managed to register 6.1% GDP growth in 2010, followed by 6.5% in 2011. In 2012, the Indonesian economy slowed down to a 6.2%. GDP growth is reduced due to low export figures as globally demand was low, weak infrastructure from government. Despite the slowdown, lot of investors are still find Indonesia is very important a key emerging market.

Government has drafted a Master Plan for Economic Development Acceleration and Expansion (MP3EI) for the period of 2011 to 2025 which is targeting to take Indonesia among the top ten global economy worldwide by 2025 with target of GDP growth around 8-9% annually.

In the trade accounts also exports reduced in US dollar terms by 2.3% in the first half of 2013-14. Govt. imposed ban on shipping out unprocessed mineral ores which has impacted the exports. Overall imports also fell down in terms of US dollars approx. by 4.4%. The trade surplus increased three times in the first 6 months to \$2.9 billion as imports reduced drastically compare to export. Still, there is deficits due to services trade and in and total deficit approx. of \$13.3 billion, equal to 3.1% of GDP. FDI was relatively good at \$10.5 billion, and portfolio investment inflows rose sharply to \$16.8 billion in the first half. On Jakarta Stock Exchange index, the share prices increased by around 20%. Foreign investors shown their interest and increased their investments in government bonds by \$7.3 billion in January–August 2014. Gross international reserves also increase by \$11.8 billion to \$111.2 billion, The Indonesian rupiah also appreciated and reached 4.1% against the US dollar, after depreciating by 19.5% in 2013.

(Source: Asian development outlook 2014)

2.3.2. Doing Business

Region: East Asia and Pacific

Income category: Lower middle income

Population: 249,865,631

GNI per capita (US\$): 3,580

DB2015 rank: 114

DB2014 rank: 117*

Change in rank: 3

As explained earlier Doing Business is a World Bank arm which is comparing various economies at the subnational and regional levels. This analysis is done basis on various business parameters for e.g. Starting of Business, Getting credit, ease in trading overseas etc. This agency will study all this business parameters in various countries & as per the ease as well as hurdles for these parameters points are assigned & then ranking is given based on overall points secured by that country. Following is details about Thailand.

Following table shows the ranking of various business perspectives with its procedures, number of days, etc.

Table No. 2.13: Business parameters Indonesia

Parameters	Rank	Business Parameters	
Ease of doing business	114	Overall Ranking	
Starting a Business	175	Procedures (number)	10
		Duration (days)	48.0
		Cost (% GNI per capita)	20.5
		Paid in Min. Capital (% of GNI per capita)	38.5
Dealing with constructing permits	88	Procedures (number)	13
		Duration (days)	158.0
		Cost (% of income per capita)	87.2
Getting electricity	121	Procedure	6
		Time	101
		Cost	370.6
Registering Property	101	Procedures (number)	6
		Duration (days)	22.0
		Cost (% of property value)	10.9
Getting Credit	86	Legal Rights Index	5
		Credit Information Index	4
		Public registry coverage (% adults)	41.2
		Private bureau coverage (% adults)	0.0
	54	Documents for export (number)	4

Trading Across Borders	Time for export (days)	17
	Cost to export (US\$ per container)	615
	Documents for import (number)	8
	Time for import (days)	23
	Cost to import (US\$ per container)	660

(Source: Ease of doing business 2015, Doing Business website at www.doingbusiness.org)

Analysis - Before starting of business, it is important to understand Business Ranking of that particular country, as it gives idea about various business parameter. In case of Indonesia the overall rank is 114, which has improved by 3 points from previous year, ever still way behind from other neighbouring countries like Thailand, Vietnam. Ranking on certain parameter like starting a business, getting electricity is really poor & need to work on same to improve same. This will help to improve overall ranking of Indonesia.

2.3.3. Industrial Policies in Indonesia

As explained earlier Indonesia is enjoying rapid growth almost from 1970 with a growing rate of almost 9%. This is also supported by Proactive approach by Government by forming Industrial policies. After major shock in 2008–2009 due to Global Financial Crisis (GFC), Indonesia could survive relatively well. However, government started focusing on improving economy against such external shocks and to improve the balance of payments. For a few sectors, the government sees more domestic linkages and building competitiveness to be one of the preferred strategy. Researcher studied this policy in details with help of following 5 parts.

A) National Industrial Policy (Presidential Regulation No. 28 of 2008 and Regulation of the Minister of Industry 41/M-IND/PER/3/2010)

This policy is focusing more on long-term industrial development vision for Indonesia. to be one of the strong industrialized nation by 2025. First target is to becoming a new industrial developed country by 2020.

This document is focusing to empower Indonesia to fulfill following broad criteria: -

- This will play major role to the national economy,
- It will be having strong industrial structure.

- It will focus on advanced technology which can be use for development and market creation.
- Focus on industry services to support the international competitiveness of the industry
- Competitive advantage which will help to face full liberalization within APEC countries.
- An analysis of Indonesia's various industrial policy documents gives greater government involvement in the field of industrial development, and at the same time greater exposure of achieving international competitiveness. This approach is used with regional approach because of vast area and for decentralization and regional autonomy. It is also focusing on usages of natural resources to get maximum benefit out of that.

B) Other Relevant Broad-Based Policies in Place:

Apart from the involvement of government in various improvements it also is responsible for its effectiveness, its implementation which can be understood by following topics.

- More focus has been given on policy implementation and to ensure its effectiveness various regulations are made for achieving this objective.
- Indonesia will require time and focus to fulfill its infrastructural needs for Industry and also households. However, government is focusing on that and recent Global Competitive Index shows improvement by getting 56 rank against earlier 80 rank.
- The trade taxes are nothing but various import duties and export duties. These are affected by various factors like fiscal consideration, trade facilitation, industrial policy objectives and international commitments.

Under its WTO obligations, some guidelines are formed. After fulfilling guidelines Indonesia's average as Most Favored Nation (MFN) applied tariff is only 6.8%, which is much lower than most of the ASEAN countries. In case of agricultural also the index is 8.4%, and for non-agricultural products it is 6.6% (Hidayat 2012).

C) Non-tariff Measures

A number of non-tariff measures (NTMs) have been brought by Indonesia government. One should keep a watch on various regulation related to licensing. Regulations on non-automatic import licensing were recently applied to a broad range of final consumer goods, and there is also a requirement for pre-shipment verification for some. The government will issue separate import licenses for various goods needs to import during production (value-added manufacturing) and further distribution (not for further processing) applicable for some products.

D) Tax Facilities

In 2011, the Ministry of Industry issued Regulation No. 93/M-ID/PER/11/2011 on various incentives for manufacturers. It also specifies guidelines and processes of applying for corporate income tax exemption or reduction facility for the industrial sector. The major benefit for this tax facilities are mainly for metal industry, oil refinery industry and/or basic petrochemical industry, machinery industry, renewable resources industry, and telecommunication equipment industry.

E) Local Content

Almost all the countries try to protect and promote local manufacturing. Indonesia is no exception for that. This new bill allows the government to set local content requirements for some of the selected industries. This also promote to use domestic product for government use in various departments. Depending on the definition, flexibility might also be given because some goods can't be domestically produced to the required level of quantity and quality. The government drafted a procurement program which will promote the use of domestic products by obliging government authorities to maximize local content in procurement using public budget.

(Source: ewp_11indonesia.pdf)

2.3.4. Automobile Industry and Vehicle Manufacturers in Indonesia:

Below the details provided regarding Automobile Industry in Indonesia as well as various vehicle manufacturers in Thailand.

A) Automobile Industry

The automotive industry is one of the major manufacturing sector for Indonesia as well. Many of the big OEM in the world have focused and started putting facilities in this country know as Southeast Asia's largest economy. As the economy is rapidly growing in Indonesia so the domestic car sales on record high in recent years. Indonesia has seen great growth from just an export oriented car production hub (especially for the Southeast Asian region) to (domestic) sales market. So vehicle producers like Toyota, GM are increasing their production capacities.

Government also announces incentives and facilitate introduction of the low cost green car (LCGC) which also help to grow market. These cars are priced less than IDR 100 million (USD \$8,403), so are popular. In addition to that the Indonesian government offered certain tax incentives to LCGC producers as it aims to turn Indonesia into the regional hub for LCGCs ahead of the start of the ASEAN Economic Community in 2015.

The automotive industry in Indonesia has grown rapidly in first quarter of 2014 after receiving lot of investment over the past four years. Investment in the automotive sector in 2013 was approx. US\$3.7 billion, which is actually 10 times more than in 2010. On the basis of the data available from Investment Coordinating Board (BKPM), currently 57 investment projects are present with the foreign direct investment (FDI).

Indonesia, known as the land of low production costs, (due to advantage of lower wages and cheap land) very popular for production, but recently with GDP per capita reaching over USD \$3,500 in 2012, Domestic car sales reached a record-high level of over 1.1 million car units in 2012, and has recently attracted increased foreign investment in the nation's car industry.

(Source: <http://www.indonesia-investments.com/news/todays-headlines/automotive-industry-indonesia-car-exports-in-2014-rising-steadily/item2134>)

A.1.) Indonesia Total Vehicle Sales

As explained in earlier paragraph, Indonesia vehicle production is growing year by year. Let's understand the actual production fig for vehicle production in Indonesia market. Various statistics of Indonesian car and commercial vehicle production and sales are as follows:

Table No. 2.14: Vehicle Production statistics (Indonesia Market):

Year	Cars	Commercial vehicles	Total	% Growth
2011	562,250	276,138	838,388	19.3%
2012	745,144	307,751	1,052,895	25.6%
2013	924,753	281,615	1,206,368	14.6%
2014	1,011,260	287,263	1,298,523	7.6%

(Source: <http://www.oica.net/category/production-statistics/>)

Analysis- As explained earlier Indonesia market is showing good growth for Automobile vehicles. The growth is ranging from 8-25%, which is really promising. In year 2011 the growth reported @ 20% over 2010. Almost 50% growth in vehicle production in 4 years of time i.e. from 800K it has reached to 1300K. Car manufacturing is almost doubled i.e. from 500K it has reached to 1000K, however commercial vehicle market is almost stable.

B) Automobile Manufacturers

The following are some vehicle manufacturer in Indonesia that started the venture development arrangement:

➤ **Suzuki Motor**

It is a joint venture between Suzuki Motor Corporation Japan and the Indo-Mobil group. Known as PT. IndoMobil Suzuki International. This Company is located in Jakarta and specialized in manufacturing Suzuki vehicles for the local market.

➤ **Astra-Honda Motors**

PT Astra Honda Motor (AHM) is one of the important player mainly for 2 wheeler segment. Company established in June 11, 1971 with the first name of PT Federal Motor.

Mainly worked on CKD model, by importing parts from Japan.

➤ **Mitsubishi Motors**

PT Krama Yudha Tiga Berlin Motors- is the partner and distributor for Mitsubishi Motors in Indonesia. KTB has complete line up, starting from City Car, MPV and SUV for Mitsubishi products.

➤ **Daihatsu Motor:**

It is again joint venture between P. T. Astra and Daihatsu Motor. It was established in January 1992, located in Jakarta. The Investment ratio of Daihatsu Motor Co., Ltd.: 61.75% Astra International: 31.87%

➤ **Nissan Motor:**

PT. Nissan Motor Indonesia is a combined venture between Nissan Motors and the IndoMobil Group. The company was established in 1986 and its headquarters lies in Jakarta, Indonesia.

➤ **Isuzu Motors**

Isuzu is one of the leader manufacturer in Indonesia. It is a joint venture between Isuzu and Astra Motor Indonesia (IAMI) having headquarter is in Jakarta, Indonesia. The company was established in April 2008 and is the successor of the previous Isuzu manufacturer. Astra International is having 44.94% share and so Isuzu.

2.3.5. Exhibitions related to automobile- Truck and Bus:

It is also important to understand various exhibitions related to Automobile Industry held in Indonesia to understand market & market players. Below are the few exhibitions held in Indonesia.

- **MTT Expo Indonesia Jakarta** was a 4-day event hold at Jakarta International Expo (JI Expo) in Jakarta, Indonesia. This event normally covers products ranging from Automotive, Plant, Machinery and Equipment, Manufacturing.

Indo Automotive fair Indonesia. The event covers products ranging from automobile engines, automobile parts and components to tools and accessories, auto equipment and machineries, auto repair services, auto maintenance services, automobile tuning services and other similar kind of products and services. The visitors get to interact with leading exhibitors and enjoy great business deals.

Indonesia International Auto Parts Accessories and Equip Exhibition (I.I.A.P.A.E.E.). This is a seven-day event at the Jakarta International Expo (JI Expo) in Jakarta, Indonesia. Also covering products from automotive industry.

Indonesia international bus, truck and components exhibition (I.I.B.T.C.E.) It is normally 4-day event at the Jakarta International Expo (JI Expo) in Jakarta, Indonesia. This event cover product like commercial vehicles, truck and bus coach builders, commercial construction, vehicles, accessories, commercial automobile components, engine and body parts, tires and re-treading, service and workshop equipment, material supplies, fleet management system etc. in the automotive industry.

Summary of Indonesia Market

Indonesia is also one of growing country like India with GDP is more than 5%. It is blessed by lot of natural minerals and youth population which is helping to boost economy. Government is focused and promoting lot of good policies to promote Export from Indonesia.

2015 ranking of Ease of Doing business is 114, though improved by 3 points from 2014, however way behind from their neighbouring countries. Need to focus on same to improve ranking.

Many Automobile vehicle manufacturers present in Indonesia and market is showing good growth 8-25% on year on year basis.

After studying economy of Indonesia, researcher has conducted same study on next selected country i.e. Vietnam.

2.4. The Socialist Republic of Vietnam



Capital: Hanoi

Area: 332,000 sq km

Population: estimated at 92,547,959 as of 1st, July 2014, (14th).

Official language: Vietnamese

Currency: Vietnamese Dong (VND)

GDP growth rate: 5.62% (estimated in 2014)

Inflation rate: 6.2% (estimated in 2014)

GDP (Billion current PPP US\$): US\$ 510.7

Five major export destinations: United

States (16%), Japan (13%), China (12%), Germany (5.7%), and South Korea (5.0%).

Five major import sources: China (28%), South

Korea (15%), Japan (9.5%), Singapore (5.9%), and Thailand (5.3%).

2.4.1. Economic Overview

In last decade Vietnam has witnessed rapid economic growth of 7 to 8 percent. Vietnam sees a good growth in exports by 20 percent per year with Foreign Direct Investment (FDI) inflows of about 10 percent per year. Vietnam has also shown impressive improvement in Human Development Index due to progress in education, health and improvement in standard of living. Due to such rapid growth and industrialization and urbanization put huge pressure on Vietnam's environmental sustainability.

However, the economy started slowing down sharply from 2013 as domestic demand reduced and exports were low. Lot of disruptions in political front badly affected the economy in post 2012 and prospects for 2014 were also in problem. Growth remained lower before rebound in 2015.

Economic growth started gaining slightly to 5.4% in 2013 but as explained earlier is was still below the 7.0%–8.0% which was observed 2004–2007. Other sectors like services contributed to 6.6%, which is one of the biggest contribution to Vietnam's GDP growth. Hotels and restaurants also increased by 9.9%, good inflow of tourists an 11% and banking and finance increased @ 6.9%. However, in wholesale and retails the growth decreased to 6.5%. Mining yield turned out to be less as coal and raw petroleum generation fell, however production expanded by 7.4%. Farming and fisheries kept up ordinary development at 2.7%. Fisheries contributed 20% of this present area's yield.

Considering demand side, there is increase in FDI and improvement in infrastructure activities resulted in 5.5% expansion of investment. Net exports of merchandise and various services additionally added to GDP development. Inflation remained to 6.6% a year ago, so to lift the development, the State Bank of Viet Nam (SBV), reduced its key strategy interest rates by 200 basis points in 2013 from 600 basis points from 2012. The Viet Nam dong was remained stable in 2013. The currency was really supported by reduction in inflation, foreign investment, and reduction in interest rates by banks. Exports increases by 15.3%. Good foreign investment contributed around 13% to GDP. As per data Mobile Phone exports increased by 69% in 2012. Computers and electronics around 36%, and textiles by 19%. However, Imports also increased by around 15.1%. Still there is a trade surplus of \$11.6 billion. The balance of payments recorded a surplus estimated at 0.4% of GDP, and international reserves were estimated at 2.3 months of imports of goods and services. Stock trades also increased by 15.3%.

In 2013, imports have increased substantially and put pressure on Vietnam's trade deficit, which reached \$733 million in 1st half of 2013. The major import was in raw material such as chemicals, fabrics and electronic components.

(Source: Asian development outlook 2014.pdf)

A) Industry and foreign investment face challenges

Mining a, especially in coal and crude oil extraction, restricted the growth of Vietnam's industrial production index for first half of 2013 and reduced to 5.3%. There is reduction in coal extraction as well up to 3.4%, other mining activities also reduced to 6.4%. In opposite to this the manufacturing and utilities sectors expanded by 6-9%.

Cost increase pressure is always there, increase in labour cost, shortages of skill set, infrastructure and policy changes affected overall investment in Vietnam. Still for first half of 2013 overall growth is 6.4% due to FDI, however overall trend is very much fluctuating. The main concern is gap between registered FDI and realized FDI, for e.g. first half of 2013 \$143.9 billion FDI registered however only 41% i.e. \$59.7 billion realized. To compensate same government is taking some steps and spending on investment development like capital construction etc.

B) Monetary and fiscal easing to spur growth

To help overall economy to grow Vietnam bank (SBV) reduced their key interest rates in May 2013 by 100 basis point to 7%, which in total 800 basis points in 1-year time period. Government also increased their spending by almost 6.5% by various means like socioeconomic development or defence spending. On a country due to this price increases and inflation reached too highest in 12 months @ 7.4%, surpasses target set of 6-6.5%.

D) Still a long road ahead for structural reforms

To help struggling banking sector and improve borrowing, Vietnam Asset Management Company (VAMC) was formed in July 2013. The main function of this company to absorb banking sector's bad debts for a certain time frame and support banking sector. Some changes are being made for restructuring state-owned enterprises (SOEs), which are can absorb 50% of bad assets of banking sector.

2.4.2. Doing Business

As explained in Thailand as well as Indonesia, here also researcher has referred to Doing Business Ranking to find out ranking of Vietnam as well as to understand important business parameter.

Region: East Asia and Pacific

Income category: Lower middle income

Population: 89,708,900

GNI per capita (US\$): 1,730

DB2015 rank: 78

DB2014 rank: 72*

Change in rank: 6

Table No. 2.15: Business Parameters Vietnam

Parameters	Rank	Business Parameters	
Ease of doing business	78	Overall Ranking	
Starting a Business	109	Procedures (number)	10
		Duration (days)	34.0
		Cost (% GNI per capita)	7.7
		Paid in Min. Capital (% of GNI per capita)	0.0
Dealing with constructing permits	29	Procedures (number)	11
		Duration (days)	114.0
		Cost (% of income per capita)	56.3
Getting electricity	156	Procedure	6
		Time	115
		Cost	1726.4
Registering Property	51	Procedures (number)	4
		Duration (days)	57.0
		Cost (% of property value)	0.6
Getting Credit	42	Legal Rights Index	8
		Credit Information Index	4
		Public registry coverage (% adults)	39.1
		Private bureau coverage (% adults)	0.0
Trading Across Borders	65	Documents for export (number)	5
		Time for export (days)	21
		Cost to export (US\$ per container)	610
		Documents for import (number)	8
		Time for import (days)	21
		Cost to import (US\$ per container)	600

(Source: Ease of doing business 2015, Doing Business website at www.doingbusiness.org)

Analysis- We can see that there has been a change in rank, from 78 in 2014 to 72 in 2015. In short, good ranking for Vietnam in Doing Business compared to other Asian countries and it is improving, still some of the countries like Thailand, Singapore is having better ranking than Vietnam & Vietnam needs to work on certain parameters to

improve the ranking. It has also been observed that procedures of starting of business and getting electricity are some of the issues in Vietnam, where the ranking is low. So needs to focus on these areas and improve the ranking.

2.4.3. Industrial Policy and Industrial Upgrading in the Automotive Industry

Vietnam made an important policy decision in the Doi Moi process in 1989, the main focus to shift focus from import-substitution to export-orientation strategy. Vietnamese policy-makers were afraid of the failure of the Latin American economies and they are eager to learn from the success stories of the industrialized nations and newly industrialized economies (NIEs). So, during the past decade, Vietnam industrial grew at an annual rate of 15.2 per cent and total annual exports increased 18.1 per cent (GSO 2011). Lately Vietnam realized importance of FDI and private sector involvement and change its initial stand of bit of monopolistic behavior of state own enterprises (SOE's). Export-oriented policy is the reason for industrial growth in Vietnam. It gained World Trade Organization (WTO) membership in 2007, and with opening up of its economy, its export increased drastically and reached to 70.6 per cent of GDP by 2010. The overall picture shows that now Vietnam economy catches the momentum and on right track with regard to its industrial policy.

2.4.3.1 The industrial policy framework

Various policy framework was made by the by Vietnam for the growth of industrial sector which are as follows:

A) Macroeconomic policies

Before 1980s, the Vietnamese economy was divided by a traditional planned economy, in which all the ways of production were owned by the state; physical input, output, and prices were looked upon by the government; there was no business autonomy. Goods and services were highly regulated. Investment was financed mostly through external sources. By the end of the 1980s, industrial production had almost stopped.

The Doi Moi Programme has changed the state ownership structure and really proved as turning point in Vietnam economy. This helps to re-designed policy included removal of checks on internal trade, more autonomy from SOE's, fast approval for foreign Investments. In short it was aggressive reform package to stabilize Vietnam economy.

B) Trade Policies

As explained in earlier paragraphs, there was no major efforts put in for any change in policy prior to Doi Moi reforms. There was a monopoly from SOEs until 1989. Still government has controlled some licence and quotas for certain commodities even in-between 1998 and 2001.

The national Socioeconomic Development Strategy (SEDS), for ten years governed Vietnam's industrial policy framework. The Ministry of Industry and Trade is responsible for formulating and implementing various industrial strategies, whereas Ministry of Planning and Investment is mainly focusing on five years' plan.

Some of the new reforms announced are introduction of Public Investment program (1996-2000). Various policies and law on encouragement of domestic investments in 1998. Encourage to attract private investor. Amendments in foreign investment policies.

New development of EPZs and IZs which will provide necessary infrastructure to industry which in-turns help to achieve industrial goals defined in policy. All these helps in drafting and implementing two successive 5 years plan 2001-05 and 2006-10.

Vietnam is launched a new Socioeconomic Development Strategy for the period 2011-20 period. This plan mainly focuses on various goals like focus on infrastructure and human resources for industrialization. Which includes improvement of market-oriented institutions, and modernization. The overall goal is to transform Vietnam an Industrialized country by 2020.

Vietnam needs to focus on various key issues like improve the competitiveness. Industry is depended upon heavy imports need to develop local production/suppliers. Second issue is firm structure for private companies to form partnership or production tie ups with other companies. Also it is observed that the policies developed are in isolation without co-ordination or consideration of various industry.

(Source: Vietnam Policies pdf)

C) Rates and Dutiable Value

The import duty rates are divided into three columns: preferential rates (MFN rates), special preferential rates (such as the rates applicable to the imports from ASEAN free trade area member countries) and standard rates. The standard rates are upto 150% for some of the merchandises. To become eligible for the preferential or special preferential rates, one need to fulfil certain conditions like the imported goods must be accompanied by an appropriate Certificate of Origin (“C/O”).

D) Other taxes

There are certain other taxes applicable for different commodities as per category like Safeguard duty, antidumping duty, Countervailing duty or Anti-discriminatory tax etc. One needs to study the duty structure for respective product before start trading with Vietnam.

2.4.4. Automobile Industry and producers in Vietnam

After understanding the economy and various policies, below are the brief about Automobile Industry and various vehicle manufacturer of Vietnam.

A) Automobile Industry

As explained above Vietnam overall economy started growing rapidly in past 10 years. Per capital income also increases from \$ 400 to \$2000, which help to develop Vietnam Auto Industry also. Vietnam auto industry started after the reform in 1986. To develop automobile manufacture and assembly industry Vietnam government introduced foreign funds in 1991. After 20 years of industry development companies like Honda, Toyota, Ford, GM, etc. finally entered Vietnam through sole proprietorship or joint-investments. By then Vietnam started establishing domestic auto enterprises as well. The estimated production capacity of complete vehicles in Vietnam is over 100,000 per year. Most of auto parts manufacturers are SME's and focusing on simpler parts like seats, batteries etc and majority of automobile industry is depended upon imports mainly from nearby Asian countries.

In 2012 domestic automobiles sales in Vietnam were about 93,000. The imported complete vehicles in Vietnam was 27,400. The imports are discouraged because of

increase in registration tax and import tariff. Korea is one of the main exporter to Vietnam with 11,800 vehicles. There is good growth in vehicle manufacturing between 2012 to 2013.

Due to increase in the income per capita and infrastructure construction, good demand for more passenger vehicles and commercial vehicles in the market. Apart from this Vietnam auto manufacture enjoys low labour and energy cost, but struggling with supply chain of auto parts. Vietnam auto industry faces competition from Thailand, Indonesia and neighbouring Asian countries. However, Vietnam signed Free Trade Agreements between China, Korea, and Japan. By 2018, the import tariff for China, Korea and Japan will be 5% and auto components can be imported at competitive rates in Vietnam market. CRI forecasts Vietnam market will be the fastest-growing auto market in the globe by 2020.

(Source: <http://www.chinamarketresearchreports.com/114679.html>)

After understanding Vietnam Automobile Industry, below table explains Total vehicle sale in Vietnam market.

Table No. 2.16: Vietnam Total Vehicle Sales- Production Statistics

Year	Cars	Commercial Vehicles	Total	% Change
2010	57778	54446	112224	10%
2011	64564	46374	110938	-2%
2012	44070	36417	80487	-27%
2013	58068	36824	96692	20%
2014	77009	53379	133588	38%

(Source: <http://www.oica.net/category/production-statistics/>)

Analysis: - As explained earlier due to various reason and supply chain issues local sales in Vietnam is still low however started growing from 2013 onwards. Due to political instability & global recession the sale was down in 2011 and 2012, which started picking up from 2013.

Let's see various manufacturers of Automobile vehicles.

B) Automobile Manufacturers

➤ Ford

The Ford Motor Company and Song Cong Diesel Company formed a joint venture in 1995 to establish Ford Vietnam Limited. This is one of the largest automotive investment in Vietnam with approx. US\$102 million.

➤ Isuzu

Isuzu Vietnam corp. Ltd., it is also a joint venture between Samco and Govimex and two Japanese top companies namely Isuzu Motors Ltd. and Itochu Corporation, the company established in October, 1995. The company mainly manufacturing and selling various commercial vehicles, such as large-sized trucks, buses, small-sized trucks and pick-up trucks, light commercial vehicles, engines and parts.

➤ General Motors

The company formed in December 1993 with a joint-venture between the Korean Daewoo Motor Corporation and Vietnamese Ministry of Defence. Later GM procure Daewoo Motors & this new company purchase share of Vietnam company and became 100% foreign investment company. In 2011, the company's name was changed from VIDAMCO to GM.

➤ Hino

Hino Motors Ltd set up its operations in Vietnam in 1996 as Hino Motors Vietnam Ltd. Company is in the business of heavy and medium-duty trucks and large and medium-sized buses. As compared to other vehicle manufacturers the sale of Hino is very less. Hino is taking measures to become strong in this growing market.

➤ Thaco

Thaco - Truong Hai, automobile manufacturer in Vietnam produces commercial vehicles and having majority share of business in the market for commercial vehicles. The product portfolio includes truck/ben, specialized vehicles and passenger cars.

➤ **Samco**

Saigon Transportation Mechanical Corporation (SAMCO) is one of the four key industry designated by the government to help in developing Vietnam's automotive industry.

➤ **Toyota**

It is the largest automobile manufacturer in the world with its headquarters in Japan. In terms of international recognition, Toyota is also selling cars in Vietnam market.

➤ **Hyundai Vinamotor Corporation (HVC)**

Hyundai – Vinamotor Corporation (HVC) is authorized manufacturer for Hyundai Motors Company (Korea) in Vietnam. It is a joint venture between Hyundai and Vinamotor Company, which was established in 2004. The main focus of this company is to assemble and distribute Hyundai trucks, minibuses and cars in Vietnam market.

➤ **Vina Star Motors (Vinastar)**

The company established in 1994. It was having sole distribution ship for – Mitsubishi and Proton. It is the joint venture is between Mitsubishi Motors Corp. (Japan), Perusahaan Otomobil Nasional Berhad. (Malaysia) and Transport Investment Cooperation and Import Export Corp. (Vietnam). It has also entered in commercial vehicle market in 1995.

2.4.5 Exhibitions related to automobile- Truck and Bus:

➤ **Vietnam Manufacturing Expo (VME)**, it showcased machine tools, metalworking technology, tools and tooling, sheet metalworking technology, welding technology, parts. Apart from machine components it is also exhibiting components for cars and wire and tube technology, various test equipment and tools, CAD/CAM/CAE systems, electric assembly; and many more.

➤ **Nepcon Vietnam 2015**, this exhibition mainly showcased Surface Mount Technology Equipment and Services, Test and Measurement Equipment and

Services and also Automotive Parts and Components Manufacturing Technology.

- **Saigon Autotech and Accessories:** - One of the important exhibition to be held in Saigon Exhibition and convention centre in Ho Chi Minh city. It is mainly focusing on exhibiting on Auto parts along with other machine parts also.
- **Vietnam Auto Expo:** - It is 4-day big show mainly exhibiting various cars and commercial vehicles along with automotive components. It is taking place Hanoi International Exhibition centre Hanoi.
- **Vietnam Manufacturing Expo:** - It is also 3 days show to be held in Hanoi International Exhibition center Hanoi. Though main focus of this exhibition is machine parts, but also automotive component manufacturers are also participated in this show.

(Source: <http://www.tofairs.com/fairs2.php?cnt=1086&cty=>)

Summary of Vietnam Market

Vietnam is comparatively small market w.r.t. Indonesia and Thailand. However impressive GDP growing with approx. 5%. It is blessed by lot of natural minerals like Indonesia, which is helping to boost economy. Government is focused and promoting lot of good policies to promote Export from Vietnam.

2015 ranking of Ease of Doing business is 78, which has slipped by 6 points from 2014. However still it is comparatively good ranking. Automobile market is also struggling due to various challenges like supply chain, import dependency. However good potential for future.

Overall Summary

This chapter mainly covers various economies of selected countries which includes India, Thailand, Indonesia and Vietnam. South east countries like Thailand Vietnam and Indonesia are developing countries and having promising GDP. All these economies have gone through recession, political instability in the period of 2010 to

2013, however the government are focusing on Industrialization and all policies drafted to increase trade, improve export and reduce imports. Ranking of doing business is also improving for all these countries, which is a good sign economy of these countries.

Overall these are potential and progressing markets to focus for future business. Automobile markets in these countries are also growing, so good scope for exports to these countries from future. Automobile component manufacturers like Tyre and Wheel can certainly focus on these markets and study in depth the potential & competition. Also important to keep an eye on various policies and duty structure.

After understanding the economy, culture, various policies, automobile markets in these countries, lets focus on foreign trade policies and various free trade agreements of India with ASEAN countries in next chapter with help of review of Indian Foreign Trade policy and Free Trade Agreements.

Chapter -3

REVIEW OF LITERATURE (PART I)

INDIA – THE FOREIGN TRADE POLICY 2015-2020 AND FREE TRADE AGREEMENTS (FTA)

One of the objective of the research is to study the government export incentive schemes and various free trade agreements signed by government of India to ASEAN countries. Researcher has already explained economics of India, Thailand, Indonesia and Vietnam in previous chapter. It is important to study the Foreign Trade Policy of India and Free Trade Agreement between India and ASEAN countries along with the implication of FTA on India and select countries.

The best document to study export policies are “INDIA -The Foreign Trade Policy 2015-2020, published by Ministry of Commerce and Industry Department of Commerce. (Notification dated 1st April 2015) and ASEAN-India Trade in Goods (TIG) Agreement which was signed in Bangkok on 13 August 2009 by government of India. The researcher has taken review of both these documents and explained below.

The new five-year Foreign Trade Policy, 2015-20 provides a framework for increasing exports of goods and service as well as generation of employment and increasing value addition in the country, in keeping with the “Make in India” vision of our Hon’ble Prime Minister. The focus of the government is to support both the manufacturing and service sector, with a special emphasis on improving the ease of doing business.

This foreign trade policy (FTP) is also accompanied by a detailed FTP, which explain the vision, goals and objective supporting foreign trade policy and lays down a road map for India’s global trade engagement in the coming years. One of the important organization in channelizing government policies are Directorate General of Foreign Trade. The details of DGFT are given as below.

3.1. DGFT (Directorate General of Foreign Trade)

Directorate General of Foreign Trade is a government organization in India and responsible for the formulation of Exim guidelines and principles for Indian importers and exporters of the country and its objective is promoting Indian exports.

3.1.1 Functions of DGFT:

- DGFT's main function is to implement Foreign Trade Policy of India by introducing various schemes and guidelines.
- DGFT perform its functions in coordination with state governments and all the other departments of Ministry of Commerce and Industry, Government of India
- To Grant Exporter Importer Code Number for various Exporter and Importers. (IEC-IMPORT EXPORT CODE)
- DGFT permits or regulate Transit of Goods from India
- To promote trade with countries and grant the permission of free export in Export Policy Schedule 2.
- DGFT also play an important role in controlling DEPB (Duty Entitlement Pass Book) Rates.
- To set standard output-input norms.

3.2 Simplification and Merger of Rewards Schemes

Earlier policies are having different 5 incentive schemes for different segments for e.g. for Agriculture sector incentive scheme is Agriculture Infrastructure Incentive Scrip. All these schemes are merged into 1 scheme called Merchandise Export from India Scheme (MEIS). Below in detailed researcher has explained MEIS & earlier schemes merged in MEIS.

3.2.1 Merchandise Exports from India Scheme (MEIS)

Earlier there were 5 different schemes viz.

- Scheme No 1 -Focus Product Scheme

- Scheme No 2- Market Linked Focus Product Scheme
- Scheme No 3- Focus Market Scheme
- Scheme No 4- Agriculture Infrastructure Incentive Scrip
- Scheme No 5- Vishesh Krishi and Gram Udyog Yojana

For rewarding merchandise exports with different kinds of duty scrips with varying conditions attached to their use. Presently every one of these plans have been converted into a one scheme called Merchandise Export from India Scheme (MEIS) and there would be no conditionality attached to the scrips issued under the scheme. These rewards are calculated basically on FOB value of the products.

3.2.2 Service Exports from India Scheme (SEIS)

Served from India Scheme (SFIS) has been replaced with Service Exports from India Scheme (SEIS). SEIS shall apply to ‘Service Providers located in India’ instead of ‘Indian Service Providers’. Thus SEIS provides for rewards to all Service providers of notified services, who are providing services from India, regardless of the constitution or profile of the service provider.

The rate of reward under SEIS would be based on net foreign exchange earned. The reward issued as duty credit scrip, would no longer be with actual user condition and will no longer be restricted to usage for specified types of goods but be freely transferable and usable for all types of goods and service tax debits on procurement of services / goods. Debits would be eligible for CENVAT credit or drawback.

3.2.3 Incentives (MEIS and SEIS) to be available for Special Economic Zones (SEZs)

Duty credit scrip to be freely transferable and usable for payment of custom duty, excise duty and service tax. All schemes issued under SEIS + MEIS and the merchandise imported against these schemes are completely transferable.

Schemes can be used for the following: -

- To make payment of customs duty for import of input/raw material including capital goods.

- To make payment of excise duty on domestic procurement of Raw Material/inputs or goods, including capital goods as per notification released by DoR.
- Various payment of service tax on procurement of services as per notification released by DoR.
- To make payment of basic customs duty paid in cash or through debit under Duty Credit Scrip can be taken back as Duty Drawback as per DoR Rules, if imported inputs are used for export.

3.2.4 Status Holders

Business pioneers who have successfully added exports are proposed to be seen as Status Holders and given exceptional treatment with a particular finished objective to reduce their trade costs and time. Earlier it is known as 1) Export House, 2) Star Export House, 3) Trading House, 4) Star Trading House, 5) Premier Trading House, all this has been now changed to One, Two, Three, Four, Five Star Export House. The criteria for toll execution for affirmation of status holder have been changed from Rupees to US dollar benefit.

Table 3-1 :- Criteria for obtaining export house status.

Status category	Export Performance FOB/ FOR (as converted) Value (in US\$ million) during current and previous two
One Star Export House	3
Two Star Export House	25
Three Star Export House	100
Four Star Export House	500
Five Star Export House	2000

Analysis: - Star export house status is normally given based on export performance. As shown in above table as FOB sales increases exporter get more stars & can avail more export benefits.

Manufacturers those are having Status Holders status can be self-certify their own manufactured goods as origin from India to qualify for special treatment under different Preferential Trading Agreements [PTAs], Free Trade Agreements [FTAs],

Comprehensive Economic Cooperation Agreements [CECAs] and Comprehensive Economic Partnerships Agreements [CEPAs] which are in operation. They are allowed to self-certify the goods as manufactured ref to their Industrial Entrepreneur Memorandum (IEM) / Industrial License (IL)/ Letter of Intent (LOI).

3.3 Boost to “MAKE IN INDIA ”

To boost make in India concept, various initiatives taken by Government as briefed below:

A. Reduced Export Obligation (EO) for domestic procurement under EPCG scheme:

Earlier export obligation for was 90%, in case capital goods are procured from indigenous manufacturers, now reduced to 75%, in order to promote domestic capital goods manufacturing industry. Higher level of rewards under MEIS for export items with high domestic content and value addition.

In following pages researcher has discussed various initiative taken by government to boost the Make in India concept and export.

- A) Other New initiatives (EOUs, EHTPs and STPs)
- B) Niryat Bandhu
- C) Duty Exemption

B. Other new Initiatives

New initiatives for EOUs, EHTPs and STPs

EOUs, EHTPs, STPs have been allowed to share infrastructural facilities among themselves. Transfer of goods and services allowed between such units. They can negotiate and purchase centrally & then distribute to various plants. This will reduce cost of transportation, other logistic costs and result in maintaining effective supply chain.

EOUs have been permitted office to setup Warehouses close to the port, this will help to expedite the delivery.

STP units, EHTP units, software EOUs are allowed to use duty free equipment for training & develop skills of their employees.

100% EOU units have been allowed facility of supply of spares/ components up to 2% of the value of the manufactured articles to a buyer in domestic market for the purpose of after sale services.

Such several facilities are given to boost Make in India.

B. Niryat Bandhu

Hand Holding Scheme for new Export/import business establishments.

DGFT is executing the Niryat Bandhu Scheme for helping new and potential exporter on the complexities of foreign trade through guiding, counseling, training to them. Focus is given to Small & Medium Scale industries to boost exports from them.

C. Duty Exemption:

Imports against Advance Authorization is free from all type of taxes, or any specific safeguard duty. Even imports of Capital goods under EPCG scheme is also exempted from all such anti-dumping, safe guard duty.

(Source-Foreign Trade Policy 2015-20)

3.4. Free Trade Agreements (FTA's): -

Other important document to understand trade relation between India and ASEAN countries is ASEAN-India Trade in Goods (TIG) Agreement which was signed in Bangkok on 13 August 2009.

Following are the details reviewed by researcher on Free trade agreement. Following advantages from trade are predicted by economic theory:

- Economic growth.
- Fall in prices after tariff reductions due to increased economies of scale as well as greater competition between firms.
- An increase in the variety of products available to consumers.

- Self-selection of firms with only the efficient firms surviving after trade Liberalization.
- Employment and wage effects associated with greater trade.
- Attracting Foreign Investments.

After understanding concept and advantage of Free trade Agreements, researcher has studied the FTA between India ASEAN countries and impact of FTA on selected countries.

3.4.1 ASEAN-India Free Trade Agreement (AIFTA)

ASEAN means the Association of Southeast Asian Nations which includes Brunei Darussalam, the Kingdom of Cambodia, the Republic of Indonesia, the Lao PDR, Malaysia, the Union of Myanmar, the Republic of the Philippines, Singapore, the Kingdom of Thailand and the Vietnam India started putting lot of emphasis on increasing trade relations with ASEAN countries in recent years. India has also signed FTA collectively with ASEAN Member States and individually as an ASEAN Member State. At long last, ASEAN and India signed the ASEAN-India Trade in Goods (TIG) Agreement in Bangkok on 13 August 2009 after so many negotiations of 6 years. Because of that in the most recent couple of years India's fare to ASEAN has expanded generously.

This FTA proposes to gradually slash tariffs for over 4,000 product lines over a staggered period, by 2016. However, certain specified products on both sides will be shielded to some degree. ASEAN-India bilateral trade has been growing steadily from 1993 and stood at US\$ 43.9 billion as of 2009-10 with ASEAN's export to India at US\$25.79 billion and imports from India at US\$ 18.1 billion as of the same year. As for foreign direct investment (FDI), the inflow from India to ASEAN member

States was US\$ 476.8 million in 2008, accounting for 0.8 per cent of total FDI in the region. Total Indian FDI into ASEAN from 2000 to 2008 was US\$ 1.3 billion.

Indonesia's share of imports was the highest at 34% of India's total imports from ASEAN, followed by Malaysia (22%), Singapore (20%), and Thailand (13%). Though there has been a large increase in-trade flows, there is still potential for enhancing trade cooperation between India and ASEAN.

Table 3.2 India's merchandise trade with ASEAN (All fig in Bn \$)

Year	Export to ASEAN	Import from ASEAN	Trade turnover	Balance
2000-2001	2.91	4.15	7.06	-1.24
2001-2002	3.46	4.39	7.85	-0.93
2002-2003	4.62	5.15	9.77	-0.53
2003-2004	5.82	7.43	13.25	-1.61
2004-2005	8.43	9.11	17.58	-0.68
2005-2006	10.41	10.86	21.3	-0.45
2006-2007	12.61	18.11	30.72	-5.5
2007-2008	16.41	22.68	39.08	-6.27
2008-2009	19.14	26.2	45.34	-7.06
2009-2010	18.11	25.8	43.91	-7.69
2010-2011	25.63	30.61	56.24	-4.98
2011-2012	36.74	42.53	79.27	-5.79

(Source:-Indian Ministry of Commerce and Industry)

Analysis – It is observed that trade has substantially increased between India and ASEAN countries. After FTA in 2009, it has almost doubled from 45 Bn \$ to 80 Bn \$. However, the last column is showing balance of trade i.e. difference between total export & total import. It has been observed that Total imports from ASEAN countries is more than total exports made by India to ASEAN countries. Balance of trades increased in 2008 to 2010, however again reduced in 2010-2012. It is also important to notice that the Imports are more than the exports, however it is quite possible as India as a single country having trade with 11 different ASEAN countries and lot of natural minerals like coal, rubber, iron ore ar imported to India from ASEAN countries.

3.4.2 Impact of FTA on Indonesia

The economic crisis of 1997 -98 forced Indonesia to liberalize its domestic market based on the International Monetary Fund (IMF) led restructuring and reforms program. The automotive policy in Indonesia was modified and revised during the process of liberalization of domestic market.

A) Withdrawal of incentives for local content usage

Lower import tariffs for completely knocked down (CKD) and completely built unit (CBU) vehicle units Removal of restrictions on importing CBU vehicles

The liberalization policy changed the automotive industry and permitted local assemblers to import components from competitive suppliers. This enabled automotive components supplier to become efficient and competitive. The policy brought in competition from the imported vehicle segment creating a more competitive vehicle industry in Indonesia. Indonesia implemented the AFTA in 2002. Implementation of AFTA had a high impact on the automobile industry. Manufacturers have been able to bring down their costs through the ASEAN Industrial Cooperation Scheme (AICO) scheme, in which traded automotive components within ASEAN are subjected to a maximum tax of 5.0 percent. The AICO was a prelude to the formation of the AFTA. The trading countries however, need to have at least 30 percent local interest or equity. Participating companies must also fulfill 40 percent local content requirement. Tariff rates for components have been declined to 0-5 percent under the Common Effective Preferential Tariff (CEPT) agreement, an AFTA mechanism. Both these arrangements reduced the cost of production and have led to lower vehicle prices in Indonesia.

B) Import duties and luxury taxes

According to the new automotive policy formulated, there are no restrictions to Indonesia on importing new automobiles and their components. Indonesia was one of the first ASEAN countries to liberalize its automotive components market. No tax concessions are available for use of imported components based on the degree of local content achieved. Import tariffs have been reduced across the board for the completely knocked down (CKD) kits and other components. They have been using the ASEAN Industrial Cooperation (AICO) scheme, in which traded automotive components within ASEAN are subjected to a tax ceiling of 5 percent. The trading countries however, need to have at least 30 percent local interest. Liberalization has increased competition in the OEM and aftermarket. Assemblers are not forced to use local content and are free to obtain cheaper components elsewhere. Accession of imported components from Asia is increasing and the aftermarket segment is becoming more attractive. The domestic manufacturers are facing attrition and a more competitive and efficient components industry is emerging in Indonesia.

3.4.3 Impact of FTA on Thailand

The Automotive Policy of Thailand underlines the export expansion policy of the Thai automotive industry. Thailand has signed FTAs with Australia, New Zealand and China in 2005, with India in 2006 and with Japan in 2007. The Free Trade Area (FTA) agreement with Japan was perceived to be a threat for the automotive components industry in Thailand. Contrary to popular assessment that this agreement will reduce the demand for the locally manufactured components, it has enabled Thailand emerge as the manufacturing base for Japanese OEMs. Thailand has complied with the WTO and the AFTA regulations by liberalizing its automotive market completely.

Numerous car vehicles and parts MNCs have put resources into the household market in Thailand and have exchanged assets and innovation into the business. These variables profited the segment producing industry in Thailand as far as having admittance to the most recent assembling innovation. Inside the ASEAN district, Thailand remains the main exporter of auto segments to Japan, representing about portion of all fares from ASEAN, trailed by Indonesia and the Philippines, whose particular shares every record for right around a fourth of aggregate fares. India-Thailand FTA containing 82 things, including a couple of car parts, for example, lighting gear, suspension and transmission segments, these things have been proceeded onward a tax lessening in three squares starting March 1, 2004 and finished on March 1, 2006, running from 50 to 75 to 100% diminishment in taxes.

3.4.4. Impact of FTA on Vietnam

Vietnam can turn into a center point for auto parts supply in the ASEAN local by using its upper hands. Vietnam joined ASEAN in 1995 and has part in AFTA since 1996. In 1998, it turned into an individual from Asia-Pacific Economic Cooperation and picked up WTO participation in 2007. Vietnam right now gives 6 percent of the aggregate auto segments sends out from ASEAN to Japan. Worldwide Japanese segments suppliers that have built up minimal effort operations with the end goal of sending out back to Japan create most sent out segments. Charges relevant to the car and auto segments industry are intended to support sends out and ensure nearby creation. This strategy is upheld by critical corporate expense motivations accessible

to recently settled organizations, especially to organizations situated in speculation zones or working in supported areas. Most recent seven years of promotion to the WTO, import obligations relevant to totally assembled units (CBUs) and parts will be decreased. Import obligations on CBUs could be decreased up to 50 percent. Under the WTO, motivating forces in light of fare proportions might be evacuated. New motivating forces in view of other criteria would apply.

One of the positive impacts of Vietnam's WTO membership on foreign direct investment is: -

Duty Reduction: Import duty are reduced for merchandise utilized as inputs for residential generation and also private and Government utilization. By and large, import duty rates on inputs for delivering sends out and different products, for example, apparatus and hardware have been decreased amid the WTO transaction process. In addition, exporters are discounted import obligations on inputs utilized for creating sends out. Vietnam is really occupied with a large number of exchange contracts.

3.5 FTA – India –Thailand Case Study

To Understand enhancement of Trade between two countries due to FTA, let's take example of: - INDIA – THAILAND Bilateral Trade

India and Thailand have an excellent relationship in trade and business. Trade between India and Thailand is growing at an amazing rate. Diplomatic relations between India and Thailand were established in 1947, soon after India gained independence. India started a policy in 1993 which was named 'Look East Policy' and the same strategy was developed by Thailand too, which was named 'Look West Policy' in 1996. India's Look East Policy and Thailand's Look West Policy set the stage for a substantive consolidation of bilateral relations.

The two countries have also decided to increase the trade between each other from \$6.7 billion in 2010 to its double in 2014. Major items of Thai exports to India include: machinery and machinery appliances; organic chemicals; electrical machinery and parts; rubbers; plastics; auto parts/accessories; fabrics; refrigerator compressors. Major items of Thai imports from India include: precious and semi-

precious stones; machinery and machinery appliances; iron and steel; auto parts/ accessories and medicinal and pharmaceutical products. India has also inked a Free Trade Agreement (FTA) with Thailand for setting up of a free trade area covering goods, services and investment. The Indo-Thai FTA covers as many as 84 items and several areas in the first phase including services, investment, economic cooperation and goods like food items, tourism, auto parts and electronic goods.

Table 3-3 India’s trade with Thailand

INDIA trade with Thailand (US\$ MILLOINS)					
Year	2007-08	2008-09	2009-10	2010-11	2011-12
Export	1810.87	1938.31	1740.16	2274.21	2961.01
Growth (%)	N/A	7.04	-11.39	32.98	30.19
Import	2300.93	2703.82	2931.52	4272.09	5383.6
Growth (%)	N/A	17.51	8.42	45.73	26.02
Total Trade	4111.8	4642.13	4671.86	6546.3	8344.64
Growth (%)	N/A	12.89	0.64	40.12	27.47

(Source: -Government of India, department of commerce)

Analysis - Trade between India and Thailand is also growing. It has reached to 83Mn\$ from 46Mn\$ from 2009 to 2012. However the balance of trade is negative i.e. more imports from Thailand than India. Thailand is gaining more advantage of FTA in comparison to India.

3.6 Potential Negative Effects of FTAs: -

So far we have seen various advantages and benefits due to various FTA’s between countries. However, FTA can have certain disadvantages or negative impacts, which is summarized below: -

- **Trade Diversion:** Trade diversion refers to the possibility of an FTA member country switching its import supplier from a more efficient (low cost) country to a less efficient member country resulting in an inefficient allocation of resources.
- **Dumping:** Dumping refers to the practice of a foreign country selling its product in the home market at a price that is lower than its “fair value”. While this can occur

even in the presence of trade barriers, the elimination of tariffs in the home country increases the probability of this occurrence and can cause considerable harm to domestic industries that can be driven out of business altogether.

- **Unemployment:** The reduction of tariff barriers leads to greater competition in the domestic market for the imported product leading to loss of market share and laying off of workers in that sector. In the short run, this kind of dislocation can cause considerable hardship to the affected workers.
- **Excessive Dependence:** Free trade can result in the shutting down of a number of industries that are unable to compete with cheaper imports. This may lead to excessive dependence on foreign supplies for a number of commodities – a situation that could have adverse effects if there were a disruption in any of the foreign supplies.

Finally, we find ample evidence to suggest that the FTA will open up opportunities for Indian businesses in Malaysia, Singapore, Indonesia, Thailand and Philippines. Important initiatives announced by the respective governments in these countries as well as projects with open tenders that will become accessible to Indian businesses to further their business interests in these countries. These opportunities will result in enhancing the growth of key businesses in these sectors with the benefits of income and employment generation in India that will add to the India growth momentum.

Summary

The new Foreign Trade Policy 2015-2020 is really a simplified policy, which will really help to boost export from India. 5 different incentive schemes which were in exist in past are now merged in one simplified scheme as MEIS for goods & SEIS for various services. This scheme will definitely help the exporters to take advantage of these incentive schemes and boost the exports. Star house status is also helping various exporters to take advantage of various facilities to make export easy. Even Tyre and Wheel manufacturers chosen for this study will also be benefited by MEIS scheme and can become cost competitive in export market.

Even the free trade agreements done by India with various South East Asian countries will help to improve the trade between India and selected countries. It is also observed that overall trade has increased between India and ASEAN countries after signing of FTA. Tyre and Wheel industry will also certainly have benefited by this free trade agreement and import duty is likely reduced in selected countries.

Researcher will also study the actual benefits of MEIS as well as Import duties for Tyre and Wheel industry. It will also compare such advantages availed by other countries while exporting Tyres and Wheels to selected South East Asian countries. Based on actual data and above study Gaps will be found out and suitable suggestions will be done to government bodies for improvements.

Chapter-4

REVIEW OF LITERATURE (PART II)

“In the era of globalization, individual companies do not have all the necessary skills and technological competence required to exploit the global market. Academicians and consultants in strategic management rediscovered the need to reshape the industry” (Xavier and Ramachandra 2000). Various marketing strategies for international marketing are perishing fast as environment is dynamic mainly the competition.

The objective of literature review is to review several schools of thought, papers/thesis presented by various scholars, reports of various government as well as private agencies to understand research done in this area so far understand the current definition for market perception or customer perception and derive gaps in the existing research or to find out further scope of research. While reviewing current and future marketing strategies understanding customer perception (market perception) seems to be one of the most relevant marketing tools in today’s era. This research is based on specific automotive components in selected countries, so direct research on similar topic has certain limitations in availability, hence researcher has reviewed the literature with help of reports available from various government and private agency, Research papers/articles ,Thesis and books.

In research paper of **Valarie A Zethaml** – professor from Duke University (Journal of Marketing July 1988) has derived customer perception as Price, Quality and Value of product. As per the author there is difference between Quality, Value and perceived quality and perceived Value. He has also proposed the model for perceived quality and value. This model also propose gap between actual price and perceived price. It is important to understand how customer encode price of product. There are certain non-monetary costs which must be acknowledged and important. As it seen market are flooded with low price component mainly from China, in this research the researcher tries to understand low price is the only strategy successful in the market or as mentioned by Mr. Valarie A Zethaml, there is any perceived price/value beyond actual price which plays important role.

Book of **Kotler (2004)** says that an increasing number of companies like DuPont, Caterpillar etc. fix their price on the customer's perceived value. They deliver the value promised by their value proposition, and the customer must perceive this value. They use the other marketing mix elements, such as advertisement and sales force, to communicate and enhance perceived value in buyer's mind.

In thesis of **Karan Soumitra(2014)** has attempted to define customer value in a more techno-commercial term as assets and liabilities linked to a branded product that creates value for both customers and the firm at each point of interaction. Hence, customer value dimensions can be achieved by a variety of marketing strategies.

In research paper **Timothy Matanovich, Gary L. Lilien, and Arvind Rangaswamy (1999)** has defined following eight attributes for customer satisfaction - PI1 (This automobile is frequently promoted through price deal), PI2 (The method of payment was convenient), PI3 (The billing process was straight forward), PI4 (Billing for the service /product was timely), PI5 (This automobile can often be bought at promotional prices), PI6 (Frequent price deals are offered for this automobile), PI7 (The price was reasonable), and PI8 (The payment period was reasonable).

Service Quality Factor is also a key determinant consumer satisfaction. Five determinants of service quality factor are: "Tangibles", "Reliability", "Responsiveness", "Empathy", and "Assurance". The highest and least scores of the importance (expectation) and satisfaction (experience) dimensions are brought based on predefined aspects related to service quality factors.

To understand customer perception, perceived value, customer value, customer satisfaction, researcher has reviewed various literature as stated above few. The Researcher has taken further review of various reports published by various government as well as private agencies to understand economy, their ranking and policies of selected countries, understand gaps in taxes, incentive schemes, import/export policies, trade barriers between trading countries. Reports related to world vehicle production to understand present state of selected countries and future potential. Automotive industry in India and its progress. Various research articles on free trade agreements between

countries its advantages & disadvantages to find gaps in such agreements. Other related research articles focusing on marketing strategies & automotive components. Thesis by research scholar related to this research topic and various books referred on marketing and international marketing.

4.1. Agencies and reports (Government and Private)

In this section researcher has studied various report from government and private agencies focusing on economies of selected countries, ranking vehicle production of various countries.

4.1.1. Asian Development Outlook 2014 (Asian Development Bank):-

The researcher has referred the Asian Development Outlook (ADO). It is a series of economic reports on the developing member countries (DMCs) of the Asian Development Bank. The ADO provides a comprehensive analysis of macroeconomic and development issues for the DMCs of ADB. The ADO features an assessment of economic trends and prospects for the world and for the developing economies of Asia and the Pacific, economies profiles, economic management issues, development policy concerns, and economic projections, for the DMCs of ADB and a theme chapter covering important issues confronting the region.

Thailand:- During the ADO 2014 overview it covers the study of **Economic Performance-** demand and supply side contribution to the growth, monthly inflation, policy interest rates, import-export growth, GDP growth, **Economic Prospects-** consumer confidence and business sentiment, tourism indicators, exchange rate , current account balance, **Policy Challenge-** policy design and implement, average GDP per capita.

Indonesia:- In 2014 ADO overview, it involves the different information regarding to the **Economic Performance-** demand side contribution to the growth, fixed investment, inflation and policy rate, fiscal and labor indicators, gross international reserve and exchange rates, **Economic prospects-** GDP growth, consumer and business confidence indexes. **Policy Challenge-** primary commodity exports, the current account deficit.

Vietnam:- ADO 2014 involves in detail the Vietnam's **Economic Performance** which includes the parameters as demand and supply side contribution to the growth, inflation,

interest rates, credit and money supply growth, budget overview and expenditure indicators, international reserves, **Economic Prospects**- non performing loans, FDI by sector, balance of payment indicators, state-owned enterprises, **Policy Challenge**- review of the policy for the economic growth.

4.1.2 Doing Business (A World Bank Group):-

The researcher has taken the review of business environment in Thailand, Indonesia, Vietnam from Doing Business-A World Bank Group, Smarter Regulations for small And Medium Size Enterprises Doing Business sheds light on how easy or difficult it is for a local entrepreneur to open and run a small to medium-size business when complying with relevant regulations. It measures and tracks changes in regulations affecting 11 areas in the life cycle of a business: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and labor market regulation. In a series of annual reports Doing Business presents quantitative indicators on business regulations and the protection of property rights that can be compared across 189 economies, from Afghanistan to Zimbabwe, over time. The data set covers 47 economies in Sub Saharan Africa, 32 in Latin America and the Caribbean, 25 in East Asia and the Pacific, 26 in Eastern Europe and Central Asia, 20 in the Middle East and North Africa and 8 in South Asia, as well as 31 OECD high-income economies. The indicators are used to analyze economic outcomes and identify what reforms have worked, where and why. This economy profile presents the Doing Business indicators for Indonesia. To allow useful comparison, it also provides data for other selected economies (comparator economies) for each indicator. The data in this report are current as of June 1, 2014 (except for the paying taxes indicators, which cover the period January–December 2013). The Doing Business methodology has limitations. Other areas important to business such as an economy’s proximity to large markets, the quality of its infrastructure services (other than those related to trading across borders and getting electricity), the security of property from theft and looting, the transparency of government procurement, macroeconomic conditions or the underlying strength of institutions—are not directly studied by Doing Business. The indicators refer to a specific type of business, generally a local limited liability company operating in the largest business city. Because standard assumptions are used in the data

collection, comparisons and benchmarks are valid across economies. The data not only highlight the extent of obstacles to doing business; they also help identify the source of those obstacles, supporting policy makers in designing regulatory reform. More information is available in the full report. Doing Business 2015 presents the indicators, analyzes their relationship with economic outcomes and presents business regulatory reforms.

Country analysis is done on following parameters i.e. Ease of Doing Business, Starting a Business, Dealing with constructing permits, Getting electricity, Registering Property, Getting Credit, Protecting Investors, Paying Taxes, Trading Across Borders, Enforcing Contracts.

4.1.3 World Automotive Industry (Organization International Des Constructeurs D'Automobiles (OICA))-:

The researcher has reviewed the Organization International Des Constructeurs D'Automobiles (OICA) report time to time. The International organization Of Motor Vehicle Manufacturers was founded in Paris in 1919. The organization's membership comprises 38 national trade associations around the world, including all major automobile manufacturing countries, thereby covering virtually the entire motor vehicle industry all over the world. The organization maintains permanent committees which conduct activities in the fields of technical affairs, communication, and industry statistics.

The general purposes of the organization are to defend the interests of the vehicle manufacturers, assemblers and importers grouped within their national federation and, in particular:

- Link the national automobile associations,
- Study issues of mutual interest relating to the development and future of the automobile industry,
- Collect and circulate useful information among member associations,
- Establish policies and positions on issues of mutual interest to the members,
- Represent the automobile industry at the international level, in particular with intergovernmental and international bodies,

- Disseminate and promote industry policies and positions among international bodies and the general public

It defines these entries as follows:

Passenger cars are motor vehicles with at least four wheels, used for the transport of passengers, and comprising no more than eight seats in addition to the driver's seat.

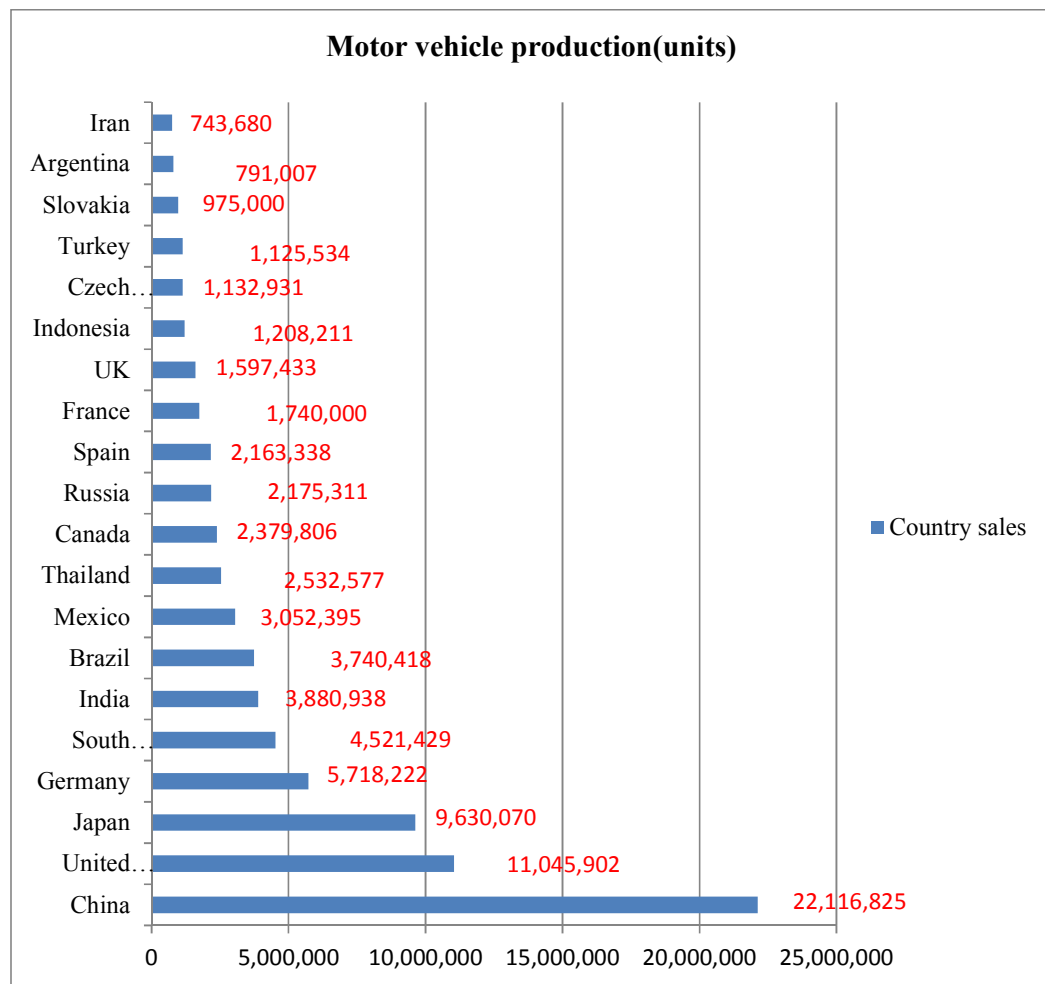
Light commercial vehicles (LCV) are motor vehicles with at least four wheels, used for the carriage of goods. Mass given in tons (metric tons) is used as a limit between light commercial vehicles and heavy trucks. This limit depends on national and professional definitions and varies between 3.5 and 7 tons. Minibuses, derived from light commercial vehicles, are used for the transport of passengers, comprising more than eight seats in addition to the driver's seat and having a maximum mass between 3.5 and 7 tons.

Heavy trucks (HCV) are vehicles intended for the carriage of goods. Maximum authorized mass is over the limit (ranging from 3.5 to 7 tons) of light commercial vehicles. They include tractor vehicles designed for towing semi-trailers.

Buses and coaches are used for the transport of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass over the limit (ranging from 3.5 to 7 tones) of light commercial vehicles.

World Motor Vehicle Production:- As per OICA report, below is the summary given of vehicle production in most of the countries for the year 2013. Below in the table are the highest vehicle producing countries.

Graph 4.1: Motor Vehicle production (2013)



(Source- Organization International Des Constructeurs D’Automobiles (OICA))

Analysis and Interpretation:-

From above report, China is the largest vehicle producer in the world with almost 22Mn vehicles produced in 2013. The selected countries like Thailand is at no 9 position with 2.5 Mn vehicles. Indonesia is also producing good no of vehicles in the range of 1.2Mn. In above chart, Vietnam is not reflecting as Vietnam is producing @ 50K vehicles which comes in other category.

1.4. Samruddhi Data Information Services-

Data regarding Import and export from India and to India was collected from Samrudhi Communication. This agency provided service regarding Import and Export. Service provider of India's Foreign Trade Statistics for Export and Import from various ports of India for over 15 years.

The details covered a) Date b) Hscode/ITC Code c) Product Description d) country/port of source/destination e) quantity f) unit g) CIF/FOB value in Rupees h) Rate per quantity in Rupees i) Indian port j) Mode of Shipment.

Data available from January 1998 onwards to current reporting month.

They can also provide you the monthly updates as per your requirement, which is on annual basis. The data will provide in Microsoft Excel File format by email or on CD-ROM.

Contact Details: - Ms. Geeta, Samruddhi Data Information Services
31, Keshavji Naik Road, 505, Sharda Chamber No. 1, Bhat Bazar, Masjid Bunder (W),
Mumbai 400009.

Tel: - +91-22-32279035, 40239035 Fax: +91-22-23713862 (M) +919221618928

Email: info@sdinfo.in, sales@sdinfo.in, samruddhiinfo@gmail.com,
sdis@airtelmail.in, sdis_2011@yahoo.in Website:-www.sdinfo.in

4.1.5. The Automotive Component Manufacturers Association of India (ACMA):-

It is the apex body representing the interest of the Indian Auto Component Industry. Established in 1959. It is an Apex body of Auto Component Industry in India. Over 700+ members from the organized sector. Represents 85% of the Industry by turnover Represented on all Government and Industry bodies. Strategic to the Auto Sector. Offices across all Regions in the Country. This body keep tracking happenings regarding Auto component industry in India. Researcher has refer their web site and various literature published time to time on Automobile components.

The Auto Component industry in India has a strong positive multiplier effect as a key driver of economic growth. The auto component industry registered a turnover of Rs. 2.34 lakh crore (USD 38.5 billion) in 2014 - 2015, with a growth of 11 percent as also CAGR of 11 percent over the last six years.

4.1.6. Society of Indian Automobile Manufacturers (SIAM)

SIAM is an important channel of communication for the Automobile Industry with the Government, National and International organizations. The Society works closely with all the concerned stake holders and actively participates in formulation of rules, regulations and policies related to the Automobile Industry.

SIAM also interacts with worldwide experts to assess the global trends and developments shaping the Automotive Industry. It has been actively pursuing issues like Frontier Technologies viz. Telematics: Promotion of Alternative Fuels including Hydrogen Energy for automotive use through cell vehicles and Harmonization of Safety and Emission Standards etc.

SIAM provides a window to the Indian Automobile industry and aims to enhance exchanges and communication expand economics, trade and technical cooperation between the Automotive Industry and its international counterparts.

4.2. Research Papers and Journal referred -

As mentioned in introduction researcher has reviewed various research papers/articles on Automobile Industry, Inter country Trade agreement and literature available on various Govt. sites to understand the subject in depth. Following are some of the papers summarised in brief.

4.2.1. ASEAN Automotive Market and Industrial policies –

Following 2 papers are focusing on ASEAN automotive market and Industrial polices in Asian countries.

A) The researcher has taken a review of the paper as “**ASEAN AUTOMOTIVE MARKET OUTLOOK AND CHALLENGES AND OPPORTUNITIES FOR SUPPLIERS**” published in Apr 2012 by **Hajime Yamamoto**, Director. In this paper it has covered global vehicles sales, robust growth in ASEAN countries, ASEAN low vehicle sales and production, production by country.

It also involves the key factors affecting suppliers in the region, new opportunity in the global entry car market, promotion of eco cars in the countries, vehicle production and sales by segment which includes as mini, sub comp, compact, large, LCV, midsize. Export of the countries, major models in the market.

It covers the benchmarking of auto parts suppliers in ASEAN countries, export competitiveness of ASEAN auto parts, cost competitiveness and future opportunities for auto parts and SWOT analysis of the respective suppliers.

This paper covers overall Outlook for Asian Automotive. Looking back and driving forward. Benchmarking of Auto Parts Suppliers in ASEAN. Future Opportunities and Issues for Thai Suppliers.

B) Industrial Policy and Development of Automobile Industry in Thailand:

The researcher has referred the paper **“INDUSTRIAL POLICY AND DEVELOPMENT OF AUTOMOBILE INDUSTRY IN THAILAND”** published in RCAPS Working Paper No.115, November 2011, by **Kaoru NATSUDA**, Ritsumeikan Asia Pacific University and **John THOBURN**, University of East Anglia. During the understanding of the paper it has provided the information as Restrictions on industrial policy implemented under World Trade Organization rules in the 2000s have greatly reduced the ‘policy space’ in which developing countries can promote industrialization. The paper examines the case of Thailand’s policies in developing one of the most successful automotive industries in the Southeast Asian region. Thailand’s use of local content requirements, later abolished under WTO rules, helped promote local suppliers and did not deter foreign investors. Substantial tariff protection of vehicles and components production did not deter exports, and has continued to the present, even under liberalization policies. Supplementing tariff protection by various fiscal means to promote product champions in the automotive industry, Thailand has succeeded in retaining substantial policy freedom.

4.2.2 India-ASEAN Trade:-

As one of the objective is to understand foreign policies and free trade agreement and its impact, researcher has reviewed some papers related to Impact of India – ASEAN trade and various free trade agreement as below.

A) The researcher has taken a review of the paper **“IMPACT OF INDIA-ASEAN FTA: A CROSS COUNTRY ANALYSIS USING APPLIED GENERAL EQUILIBRIUM MODELLING”** by **Chandrima Sikdar and Biswajit Nag** which is published in November 2011, Asia-Pacific Research and Training Network on Trade Working Paper Series, No 107.

It involves the study that analyzed the impact of the trade agreement on India and the ASEAN members. The study used the Global Trade Analysis Project (GTAP) for this purpose. The GTAP model is a comparative, static multi-regional computable general equilibrium (CGE) model that uses a common global database. This is an analytical tool used to understand the dynamics of major economic variables in a simulated environment. Using this database, a number of simulations were carried out by this study, involving different scenarios of

- (a) India's trade liberalization with regard to Malaysia, Singapore and Thailand;
- (b) Liberalization with all 10 ASEAN countries (as will be the case by 2019); and
- (c) Full liberalization if tariffs on all products traded between India and the ASEAN members are completely eliminated.

The results of the simulations were then used to assess the impact of liberalization on India and ASEAN members as well as on some other countries. The welfare implications of the FTA for the countries involved were studied in the case of where perfect competition and constant returns to scale and imperfect competition, and increasing returns to scale characterize the production structure in the Indian economy. Thus, the study revealed different possibilities of welfare and other macroeconomic implications, which will help policymakers to assess the actual situation so that a proper domestic policy can be formulated as this agreement gradually takes effect.

Table: 4.1 ASEAN Member's Imports and Exports:-

(Units:US\$'000)

ASEAN Members	Exports				
	2004	2005	2006	2007	2008
Brunei Darussalam	4956	4395	44462	8814	17155
Cambodia	1674	21350	48089	44826	53854
Indonesia	1205594	1390066	1869806	1878196	2659314
Malaysia	1040207	1143775	1331365	1850254	3034408
Myanmar	112698	117246	124088	162757	237333
Lao People /					
Democratic Republic	953	6540	2362	2939	4591
Philippines	362923	482110	596836	571413	755025
Singapore	3416459	5427555	6127250	6390068	8853900
Thailand	856828	1059267	1350985	1673337	2005280
Vietnam	534846	633465	874098	1241477	1812607
TOTAL	7552218	10285769	12369341	13824081	19433467
Per cent share in					
India's total export	9.95	10.25	10.21	9.48	10.69

ASEAN Members	Imports				
	2004	2005	2006	2007	2008
Brunei Darussalam	455	832	225719	234094	325861
Cambodia	234	425	1482	1245	4271
Indonesia	2427665	3018949	3610443	4840346	6431337
Malaysia	2214486	2435996	4655925	5725558	7461390
Myanmar	419685	489162	702698	809067	906267
Lao People / Democratic Republic	92	72	376	80	525
Philippines	180851	203196	208768	173536	227640
Singapore	2492155	3159416	5184562	6901607	8304751
Thailand	750164	1196597	1550809	2192368	2664791
Vietnam	73208	127378	159826	153134	371605
TOTAL	8549995	10632023	16300608	21031035	6698438
Per cent share in India's total import	8.64	7.55	9.15	9.62	8.46

(Source: - International Trade Centre Trade Maps.)

Analysis and Interpretation:-

Above table shows trade between India and ASEAN members. ASEAN members are mostly 11 members as mentioned above. During the period of 2004 to 2008, export are increasing and same were almost 10% of India's total export. However Imports are around 9% of India's total imports. In short the trade is of increasing trend.

B) The researcher has taken a review of the paper of “**THE ASEAN-INDIA FREE TRADE AGREEMENT: A SECTORAL IMPACT ANALYSIS OF INCREASED TRADE INTEGRATION IN GOODS**” by **Smitha Francis** which is published in Economic and Political Weekly, Vol. 46 No. 02, January 08 - January 14, 2011. The study of the paper covers the information as pattern and composition of India's trade in the context of India's growing integration with Asia, India's increasing trade with the ASEAN countries in detail ,the tariff reduction commitments under ASEAN-India Free Trade Agreement (AIFTA) and analyses the extent of potential market access that will be gained by ASEAN countries in India's agricultural and non-agricultural sectors and examines the potential market access scenario for India in some of the major ASEAN countries.

C) India ASEAN Free Trade Agreement: - Implications for India's Economy

A Deloitte-FICCI White Paper - March 2011 (www.deloitte.com/in)

Researcher has reviewed this White Paper on “**INDIAN ASEAN FREE TRADE AGREEMENT. FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY (FICCI)**” established in 1927, FICCI is the largest and oldest apex business organization in India. Its history is closely interwoven with India's struggle for independence and its subsequent emergence as one of the most rapidly growing economies globally. FICCI plays a leading role in policy debates that are at the forefront of social, economic and political change.

This paper focus on what are the likely impact of the India-ASEAN FTA on the Indian economy? What industries will benefit from the implementation of the FTA and what industries will be hurt? Is this likely to create a significant impact on the wages, employment and trading patterns in India in the years to come? What opportunities and threats should Indian businesses be aware of?

ASEAN region exports more to India than what India exports to ASEAN, a greater trade dependence will possibly allow India's exports to ASEAN to increase in the years ahead. Moreover, we also find that India has increasingly been concentrating its exports to ASEAN towards mineral fuels and mineral oils.

The automobile industry (including auto parts and ancillaries) is on the borderline with no clear trend that may allow us to conclude whether India or ASEAN has a clear advantage over the other.

Although the current FTA is restricted to that in goods alone, This paper extrapolate the possible implications of the FTA on the services sector through secondary multiplier effects on the economy. It also find evidence that a FTA with services (that is currently being discussed) will certainly be a boost to the services sector in the Indian economy and will help in sustaining the growth momentum in the medium to long term.

Finally, it gives ample evidence to suggest that the FTA will open up opportunities for Indian businesses in Malaysia, Singapore, Indonesia, Thailand and Philippines. We have highlighted important initiatives announced by the respective governments in these countries as well as projects with open tenders that will become accessible to Indian businesses to further their business interests in these countries.

D) The researcher has taken overview of the paper of “**INDIA-ASEAN FORGING PARTNERSHIP FOR ECONOMIC INTEGRATION**”, published by **Federation of Indian Chambers of Commerce and Industry**. The paper examines the relationship between India and ASEAN; the economic, social, and political importance of their cooperation; and its consequences. The Association of Southeast Asian Nations (ASEAN) consists of 10 member nations that have grown rapidly and relationship and culture between ASEAN-India. ASEAN has become one of India's largest trading partners in recent years with trade growing from US\$ 10.2 billion in 2000 to US\$ 76.4 billion in 2011. A majority of India- ASEAN trade is with Indonesia, Malaysia, Thailand, Singapore, and Vietnam. In 2011.

Indonesia's share of imports was the highest at 34% of India's total imports from ASEAN, followed by Malaysia (22%), Singapore (20%), and Thailand (13%).

Though there has been a large increase in trade flows, there is still potential for enhancing trade cooperation between India and ASEAN. It reveals the comparative advantage between ASEAN countries and their trade and investment.

4.2.3. Indian Automotive market

In this section researcher has reviewed various papers related to Indian automotive Industry.

A) The researcher also has taken the review of paper “**ISSUES, CONCERNS and SUBMISSIONS OF INDIAN TYRE INDUSTRY**” which is published by **AUTOMOTIVE TYRE MANUFACTURERS’ ASSOCIATION (ATMA)** and submitted to Ministry of Finance, Government of India in 2015. Within this it covers the major area of Indian Tyre Industry and the Industry Environment and Outlook of Auto Sector and Tyre Industry (Including Capacity and Investment by Tyre Industry). During the understanding of the paper it has provided the information as Key Issues / Major Concerns of the Indian Tyre Industry i.e. Natural Rubber: Inverted Duty Structure, Major Raw Materials of Tyre Industry, Demand Supply Gap, Duty Structure – Existing and Proposed and Customs Duty on Tyres.

As per this paper import of rubber is a costly due to higher duty, whereas importing Tyre is less expensive as less duty. In addition that due to free Trade Agreement between India and ASEAN countries, tyre import has further subsidized in terms of duty, but no similar advantage to rubber import though imported from ASEAN

countries. So this paper suggests the government to seriously think on these two key issues to make to protect tyre industry.

B) The review of paper “**TRADE LIBERALIZATION AND INTERNATIONAL PRODUCTION NETWORKS: EXPERIENCE OF THE INDIAN AUTOMOTIVE SECTOR**”, by **Biswajit Nag**, published in 2008, has been taken by the researcher. Within this it covers the major area of Indian automobile industry as evolution of Indian automobile industry, investment by the different sectors, policy framework for automobile industry and trends in the exports and imports.

C) The review of paper “**AUTO-COMPONENTS INDUSTRY IN INDIA: NEED TO RESOLVE TWO KEY ISSUES**” has been taken for study which is published by FISME (Federation of Indian Micro and Small and Medium Enterprises) and is prepared by FISME Research Team: **Arjun Sen and Gaurav Tripathi** in August, 2011. The study of the paper basically addressed various challenges faced by Indian Auto-component industry, like Infrastructure Deficit, Talent Crunch, Scaling-Up the industry, Access to World-class Technology and Quality Practices, Remaining cost competitive, Access to and availability of cost-effective capital, Trade Policy.

Apart from above two main challenges are A) slowing down of investment in the OEM auto sector, B) A sharp rise in imports, mainly from ASEAN countries. Given the current scenario, there is an urgent need to look at:

- How to ensure a better investment climate for automobile majors, and whether the tariff regime for auto components should be reviewed given that the auto component companies provide employment to nearly 1 million people and is likely to create an additional employment of another 1-1.2 million people over the next decade.
- A stable and growing auto component industry, which has thousands of producers in the unorganized sector as well, is critical for the overall health of the economy.

As a conclusion the researcher of this paper suggested that the Government of India review the above two issues on an urgent basis.

D) The researcher also has taken the review of paper “**DEFINING THE ROLE OF GOVERNMENT IN THE TRANS NATIONALIZATION EFFORTS OF THE INDIAN SMES IN THE AUTO COMPONENTS SECTOR**” which is published by **IDC (India) Limited** and Prepared for Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, New Delhi in August, 2008. The study of the paper covers the information as auto component industry in India: an overview, policy environment for auto component industry in India and other countries, challenges faced by Indian SME’s auto component industry in Trans nationalization and recommendations.

E) The researcher also has taken the review of paper “**AUTO COMPONENT**” which is published by **IBEF (India Brand Equity Foundation)** in January 2015. The study of the paper covers the information as robust growth in Auto component, Rising Indigenization, Growing automobile industry, Demographic advantage, and expanding middle class.

4.3 PhD Thesis referred-

Researcher has referred 5 Thesis from various universities related to present research topic as below.

A) PhD Thesis on “**Value Intensive Marketing Strategies in Automobile Tyre industry, HCV segment and its impact**” by **Dr.Karan Soumitra** under guidance of **Isita Lahiri** submitted in year 2014 to University of Kalyani.

Here the researcher has tried to define value. There is difference between Value and perceived customer value. Perceived customer value is the difference of customer perceived benefit and perceived cost.

The researcher has chosen Indian automobile Pneumatic tyre industry w.r.t. HCV and Bus. Automobile tyre trade is experiencing rapid growth with automobile vehicle sector. It is primarily a derived demand from OEM (Original Equipment Manufacturer) and then it moves to replacement (end user) market.

Some of the objectives of research are to understand the overall Indian automobile pneumatic tyre industry w.r.t. HCV tyres, growth potential for Indian Tyre industry, Value enriching factors, sales pattern of tyre sale present and past.

The researcher suggested that that present market condition needs more attention and comprehensive marketing plan through innovation in product and pricing strategies. From the study it is also evident that traditional competitive strategies do not effectively meet today's and tomorrow's business intents .Innovative marketing efforts on increasing values to customer would be a more consistent tyre business profile for survival and growth of a tyre manufacturing enterprise.

Radialisation of automobile tyre is the potential future of Indian tyre industry. Considering all this building a powerful brand is the foremost business requirement not only for charging premium prices but also for entry of new product/ brand which will receive cumulative advantages of existing tyre brand dominating the customer cluster owing to its historical reasons.

B) PhD Thesis on “Consumer Satisfaction in Automobile Industry – A comparative study between Iranian and Indian consumers” (2009) submitted by Miladian Hassein under the guidance of Dr.Nagendra Babu in year 2009 in University of Mysore.

The researcher in this research tried to compare customer satisfaction in Iran v/s Indian customer w.r.t. Automobile Industry. Some of the objectives of this research are to understand the most important dimensions of service quality that affect customer satisfaction in India and Iran, Improve Brand Perception, Understand customer expectations.

Satisfied consumers are repeat customers, and provide good word-of-mouth promotion for a firm's goods and services. Dissatisfied consumers tend to buy elsewhere and tell others about their negative experiences. Hypothesis are based on Service Quality dimensions, Brand dimensions, Price dimensions automobile's feature and the Advertising dimensions have a more positive effect on for customer satisfaction while comparing these two countries.

At the end the research proves that all these dimensions are important for customer satisfaction, however the priorities are different for different markets for e.g. for Indian customers Service Quality is important, but for Iranian customer Brand dimension is more important. Based on this while studying present research, researcher tries to understand various dimensions for customer satisfaction and perception.

C) PhD Thesis on “FOREIGN POLICY OF THAILAND – CHALLENGES and OPPORTUNITIES” (1980-2005) by Mr. Sorn Namotr, Sutipran. Under guidance of Dr. Aparna Agashe Year of Submission – 2011. The researcher in above the study covers changing trends in Thailand foreign policy over a period of 1980 to 2005. The main focus is on analysis of this impact on neighboring ASEAN countries as well as India. Researcher has done critical analysis of various challenges and opportunities for Thailand due to change in foreign trade policies over a period.

Learning:-

The researcher concluded that there are frequent changes in foreign Trade policies and this is mainly due to Globalization and Liberalization. Thailand needs to react the same and make time to time changes and FTA toward many countries including ASEAN and India and China. This changes made on time to time brought positive change for Thailand economy and also beneficial for Thailand.

D) PhD Thesis on “THAILAND FOREIGN POLICIES TOWARDS NEIGHBORING COUNTRIES: - MYANMAR, LAOS, MALAYSIA and CAMBODIA” by Sansara Visut Paisan. Under Guidance of Dr. S. R. Kakde – 2005. The researcher has tried to find out foreign policies of Thailand towards neighboring countries. Thailand has focused more on localization policies and supply to neighboring countries are considered under localize supply. Thailand is focusing on these countries to increase trade and Thailand has substantial advantage due to its strategical location.

E) PhD Thesis on “ A Study on India’s trade relationship with SAARC countries with special reference to SAPTA By Mr. Venkatesh M. under guidance of **Dr. P. Sudarshan** in **2012** in Cochin University of Science and Technology.

In this research researcher studied the trade relationship between SAARC countries. The South Asian Association for Regional Co-operation (SAARC) comprises the seven

countries of South Asia. i.e., Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. SAARC is a manifestation of the determination of the people of South Asia to work together towards finding solutions to their common problems in a spirit of friendship, trust and understanding and to create an order based on mutual respect, equity and shared benefits.

The objectives of the study are to study India's Import and Export with SAARC countries. To analyze SAARC countries intra-regional trade, economic co-operation. Preferential trading agreement covered in SAPTA. Hypothesis considered are no major improvement in India's trade with SAARC countries after SAFTA. No trade Complementarity that exists between SAARC countries. Trading relations amongst, SAARC countries are affected to a great extent by high levels of tariffs and a variety of non-tariff barriers including quantitative restrictions and discriminatory practices.

From this thesis one can understand impact of Free Trade Agreement between two countries, advantages for trade increase. Same time there are certain trade barriers, which one needs to understand and to work in that direction to make business easy between two or group of countries.

4.4 Books Referred-

Researcher has referred some books on Marketing and International marketing, Export strategies. **A) "International Marketing" by R Srinivasan (2008)** to understand Trade theory, Environment of International Business, consumer behavior. **B) "Marketing Management" by Ramaswamy and S. Namakumari.(2013)** to understand Marketing needs, Marketing Environment global and Indian, Analyzing consumer and selective market, Marketing Challenges. **C) Kotler P. (2004) "Marketing Management Practices"** to understand customer values, perceptions. **D) "Export strategies in India" by Deb K.** to study various export strategies in depth.

4.5 Identifying Literature Gap and Summary of review.

To summarize this chapter, researcher first studied concept of Value & perceived value, Customer Perception, Customer satisfaction with help of various literature available and briefed in starting of this chapter. **Valarie A Zethaml** has defined a model to study Perceive Quality and Perceive Value. Even other authors/ researcher also defined Perceived value (Kotler 2004), Customer value, various attributes for customer satisfaction.

Valarie A Zethaml model propose gap between actual price and perceived price. It is important to understand how customer evaluate price of product. There are other factors apart from cost is important and needs to consider. As it seen market are flooded with low price component mainly from China, in this present research the researcher tries to understand low price is the only strategy successful in the market or as mentioned by Mr. Valarie A Zethaml, or is there any perceived price/value beyond actual price which plays important role ?

As studied by **Karan Soumitra** in his research on Indian Tyre Industry that tyre purchasers are value seekers. They need a tyre brand which will give optimum performance at reasonable price. The tyre buyers vary in their value expectations and they can be segmented accordingly. The marketing managers can formulate specific marketing program for specific target segment.

To derived this perceived price and also to understand value expectation of customer in overseas market for automotive component researcher tried to study the market perception of automobile component w.r.t. various parameters like Quality, Price, Brand recognition, Availability in market, Warranty/Service provided, life of product. Study will be conducted in 3 countries i.e. Thailand, Indonesia and Vietnam with reference to Commercial Tyre and Wheel.

Other gaps or difference observed are the difference in duty for various countries, incentives provided by government, policy differences, trade barriers, which was also studied in this and previous chapter with help of Foreign Trade Policy document, Free Trade agreements, various research papers/thesis . Based on all above research methodology is formed, area for study, sample size defined and covered in next chapter in detail.

CHAPTER -5

RESEARCH METHODOLOGY

5.1. Introduction

Previous chapters are focused on introduction, understanding the economies of selected countries and foreign trade policies along with Free trade agreements between India and selected ASEAN countries. In this chapter Research Methodology used for this research is explained in detail. As mentioned in Introduction, this research is based in 3 Asian countries i.e. Thailand, Indonesia and Vietnam. Researcher needs to visit these countries to collect data. Collection of data in overseas market has certain limitation due to accessibility to those market and accessibility to respondents. Same has explained in Scope and Limitation of study. Research Methodology is designed with these constraints with best possible efforts to collect data during physical visits and contact on e-mail & phone calls.

5.2. Statement of Problem

As explained in introduction there are huge opportunities for Indian Automotive Component Manufacturers to explore Export possibilities. Apart from Quality and Technology advantage, there are many other supporting factors like Free Trade Agreements between countries, Government incentive schemes, appreciation in USD etc. However at the same time it is not easy to enter in overseas market. One needs to study culture, background, business environment, potential, different government policies, various trade agreements and also the competition.

Competition at Cheap price from low cost countries mainly like China is one of the major concern, which Indian industry is facing in domestic as well as overseas market apart from other concerns. Automobile component industry is no exception to this.

The main Problem is to understand this Price Competition and also to understand Market Perception for Indian auto component and then to suggest suitable marketing Strategy to take an entry in Overseas Market. Once such model formed and guideline set, it will be beneficial for all companies and students for international marketing.

It is always challenging to study international market in depth and competition present in that market. It requires in depth survey, visits and detailed analysis (like culture, environment, competition etc.) to understand Market perception and then potential for export to these country.

In international markets choosing the potential country and right partner for business is important from long term perspective and for business development. Since market environment, business culture, legal systems etc are not familiar to anyone whosoever does business in other countries. It became important to understand Market Perception for the product to decide appropriate strategy. But choosing entry strategy without evaluating many options may prove fatal for business. Depending on the future plans, vision and mission of the organization the entry strategy may differ. Hence taking into consideration the objectives of the organizations and global aspirations, strategy should be chosen with due diligence.

Researcher has chosen Automobile component market specifically as this market is growing fast as mentioned in Introduction and having good scope for exports in various countries due to technological and Qualitative advantage. Again Automobile component market is huge and due to limitation to access and collection of data, so researcher has chosen 2 selected automobile components. These 2 components selected are Tyre and Wheel Rim for Commercial Vehicle Segment. Tyre and wheel rims are one of the important family of Auto components out of 20 families of Auto component which are normally exported from India. Apart from that Auto components are divided into 3 categories as per their value. Being high value items, Tyre and Wheel Rim are considered as A type items.

The researcher has chosen S.E. Asian countries due to present FTA (Free Trade Agreement) between India and ASEAN countries. Good opportunities are available for Indian component industry to explore business possibility with these ASEAN countries. One need to understand countries involved in ASEAN countries. Mainly Thailand, Malaysia, Indonesia, Philippines, Vietnam and Singapore are main countries coming under South East Asian countries. Out of these major six countries researcher has chosen 3 countries to conduct this research.

5.3. Objectives of the Study

- To study socio-economic culture of selected countries. Study government policies, economic status and consumer behavior with reference to automobile market and selected automobile components in these countries.
- To study Indian government schemes for exports promotion and also study inter country agreements like Free Trade Agreements and its benefits.
- To Study market perceptions, import pattern, competition, pricing and present potential for select auto component (Tyre & Wheels) in selected countries.
- To suggest marketing strategies for select components for selected countries and also suggest marketing model for Auto Components for overseas market.
- To make suggestions to Automobile component Industry as well as respective Government departments regarding exports of Auto components.

The first objective regarding study of Socio-economic culture of selected countries are mostly secondary data regarding that countries and researcher covered this entire topic in a separate chapter to describe economies of various countries. The 2nd objective is related to Indian government schemes for export promotions and free trade agreement between India and ASEAN countries. This is also review of secondary data or literature of ‘The Foreign Trade Policy 2015-2020 of Indian Government’ & Free Trade Agreement. This objective is also covered separately with separate chapter.

All other objectives are studied through by collecting Primary data and necessary suggestions and recommendation made based on analysis of primary data collected through questionnaire.

5.4. Scope and Limitations of Study

- The study is limited to three countries in South East Asia i.e. Thailand, Indonesia and Vietnam.
- The Scope of study is limited to Aftermarket (Spare/Replacement Market).
- Scope of the Study includes Major Dealers having presence on national level, Major Trailer manufacturers and sales office of tyre Manufacturers.

- Scope of the study is limited to select under chassis components (Tyre and Wheel) for Heavy and Medium commercial vehicles only.
- Market Research is limited to one or two major commercial cities of each country.

Vehicles are classified based on their applications like Passenger Car Vehicles (PCV), Utility Vehicles (UV), Light commercial vehicle (LCV) and Medium commercial vehicles (MCV) and Heavy commercial vehicle (HCV). Researcher has chosen MCV and HCV segment for research.

Automobile market is again divided in two parts OEM (Original Equipment Market) i.e. vehicle manufacturer and Aftermarket i.e. spare part and replacement market. Researcher has chosen After Market for study as is more challenging to formulate strategy for these markets.

5.5. Hypothesis of the Study

HA 01: Thailand, Indonesia and Vietnam are importing lot of Auto Components from various countries.

HA 02: Import from other countries at lower price and vast availability in market restricts penetration for Indian Automobile Component.

HA 03: Market Perception for Indian Automobile components is better than Chinese components in terms of Quality, Service and Brand recognition.

5.6. Pilot Study

Pilot Study is mainly conducted to pre-test the questionnaire with small no of respondents i.e. 1 dealer from each country for wheel as well as tyre for better understanding of problem. Constructive comments and suggestions from the feedback is incorporated in questionnaire to improve the quality of data collection.

Initial Pilot Survey was conducted for Thailand and Indonesia Market to understand market size, present competition pattern and to understand potential of market.

The following are some of the questions included in the survey questionnaire:

- Present requirement of OEM and Spare Market demand
- Major player in OEM market
- Dominating players in Tyre and Wheel component
- Presence of Indian Product in market.
- Potential for good quality product in market

The pilot study reveals that there is very little presence of Indian product (tyre and Wheel) in Thailand and Indonesia market. Market is dominated mainly from cheap imports from China. Certain segments needs quality product, however there is no proper strategy implemented by either Indian manufacturer or even Chinese manufacturer. Based on same researcher included more characteristics apart from price in questionnaire to understand perception for tyre and wheels coming from various countries, which will in-turn help to suggest suitable strategies.

For reliability of Pilot study researcher has studied data regarding Import Export of Automotive component to India from Thailand, Indonesia and Vietnam from private agency called Samrudhi Communication. This data is also showing substantial Import and Export from these selected countries to India. This data is analyzed in in Analysis chapter.

5.7. Research Design

Basically research design is a plan for collection of data, measurement of it and then analysis of the same. As explained earlier this research is mainly conducted in 3 Asian countries for select automotive components, there are certain limitation of accessibility to data. Research Design is done by considering this limitations.

Descriptive method with cross-sectional approach of research

Research design is covered under three parts as follows

- Sampling design (method of selecting respondent)
- Observational design (how data is collected)
- Statistical design (how the data gathered is analyzed).

5.7.1. Sampling Design

A) Population

Automotive component user in selected 3 countries are the population for this study. However as mentioned in Scope of study, scope is limited to Heavy and Medium commercial vehicles (H and MCV) and for Spare market requirements in selected 3 countries. Considering this Population for this study is limited to Automobile Component dealers/users deal in H and MCV components in spare market and having majority of business of selling Tyre and wheels and presence throughout the country. After interviewing Tyre and Wheel rim manufacturers during Pilot Study, it has been observed that such Dealers/Distributors dealing in Tyre and Wheel at national level are approx. 15 no in each country.

B) Estimating Sampling size

- 3 Countries: Thailand, Indonesia and Vietnam.
- 2/3 Sales Offices of major Tyre manufacturer in each country.
- 4/5 major dealer in each country having presence on National level and dealing in Tyre or Wheel rim business.

As brief earlier population approx. 15 nos of Dealers/ Distributors are present in each country dealing in Tyre and Wheels in Spare market for Heavy and Medium Commercial vehicles, researcher has selected sample size of 6/8 respondent in each selected country. However while selecting these respondent due care has taken that these dealers/manufacturers are covering approx. 40% of market. The details of these respondent and their market share in compare to total market potential w.r.t. specific country is given in Appendix B & summary is as below:-

Table 5.1. Sampling Size Thailand Market

Tyre Requirement (Nos) (Year 2012)	800,000
No of Respondents	7 Nos
Approx. Sales of respondent (Nos)	>320,000
Wheel Requirement (Nos) (Year 2012)	100,000
Approx. Sales of respondent (Nos)	>40,000

Table 5.2. Sampling Size Indonesia Market

Tyre Requirement (Nos) (2012)	200K
No of Respondents	7 Nos
Approx Sales in of respondent (Nos)	>80K
Wheel Requirement (Nos) (2012)	100K
Approx Sales of respondent (Nos)	>40K

Table 5.3. Sampling Size Vietnam Market

Tyre Requirement (Nos) (2012)	275K
No of Respondents	7 Nos
Approx Sales in of respondent (Nos)	>110K
Wheel Requirement (Nos) (2012)	50K
Approx Sales of respondent (Nos)	>20K

(Source :- Table 5.1, 5.2, 5.3 – Researcher’s Illustration)

C) Sampling Method

To understand Market Perception and then to formulate long term strategy especially in overseas market, researcher has collected specific data related to automobile components. To collect such data researcher approached specific sources related to auto component market. To get correct and reliable data researcher has chosen purposive sampling technique for data collection.

Table 5.4. Types of respondents

Type of respondent	Nos
Tyre and Wheel rim manufacturer	2-3
Dealers/Distributor	4-5

(Source :- Researcher’s Illustration)

5.7.2. Observational Design

Data is defined as the various facts presented to the researcher during research study. Data is of two types i.e. primary and secondary. Primary data are collected by conducting surveys in selected countries and structured interviews in the selected

sample/dealers to answer research questions while secondary data is nothing but studies made by others for their own research purposes such as relevant reports of prior research studies, if any, published documents by other authors, articles on Internet, periodicals, books and news articles. Observational design covers various aspects of sources of data, data collection methods, instruments.

A) Sources of Primary Data

Primary Data will be collected directly through following sources:

Tools for Collection of Primary data:

- Interview schedule

Thailand Market: - Total 7 respondent contacted and in depth personal interview conducted with help of questionnaire.

2 Tyre manufacturer and 5 Major Dealers. No Wheel Manufacturer in Thailand.

Indonesia Market:-Total 7 respondent contacted and in depth personal interview conducted with help of questionnaire.

1 Tyre manufacturer and 6 Major Dealers. 1 Wheel Manufacturer having limited capacity.

Vietnam Market: - Total 7 respondent contacted and in depth personal interview conducted with help of questionnaire.

2 Tyre manufacturer and 1 wheel manufacturer, 4 Major Dealers.

Apart from scheduled interviewed with respondent researcher also interviewed marketing officers of Indian Tyre and Wheel manufacturers to understand their views about export and these market. Also approached Indian manufacturers association in Vietnam to understand Vietnam market and overall competition.

B) Sources of secondary Data

Efforts were made to collect various data, statistics pertaining to the study. To collect information related to Free trade Agreements, Government export policies various government sites are referred and data collected. Various official sites of Auto component manufactures/associations referred to collect various statistics regarding Auto industry. Various paper referred to understand impact of various FTA's on

intercompany business. Few published Ph.D. thesis available on UGC (shodhganga) and PROQUEST database was studied. Ph.D. thesis available in Tilak Maharashtra Vidhyapeeth, Savitribai Phule Pune University also referred.

Also data is collected by contacting Indian auto component manufacturers (KMW & WIL) marketing representative as well as visiting Indian manufacturers association in Vietnam.

C) Instrument

Questionnaire (Appendix A)

For the reliable research, within the limits of the study, the findings must be valid and correct. To make the finding valid and reliable, the research instrument should be designed carefully. Considering scope and limitation of this study, where data is collected from 3 different countries, more focus is given on designing of questionnaire and collecting data through formal and informal interview of respondent.

The majority of the survey questions in this study are open ended questions to understand requirement and present import pattern, preferences of customer etc. Some questions are designed as ranking questions to understand preference rank for various characteristics like Price, Quality, and Brand name etc. Same time these questions are designed to give comparative data between 2 countries. Respondent also has been asked to give their suggestion.

Table 5.5. Types of Questions used in the questionnaire

Type of questions	Number of questions
Free Response Questions (Open ended questions)	12
Dichotomous Questions	1
Ranking Questions – (Multiple Response)	1
Rating Questions (Multiple Response)	1
Total Number of Questions	15

(Source :- Researcher’s Illustration)

Though the number of Questions asked 15, but same questions are asked in context of Tyre and Wheel. Also in the context of country like India, China and Local country. So actually no of questions asked are multiple of 15 and substantial data collected.

The link between each section of the Questionnaire to the Research Hypotheses is summarized as below:

Table 5.6. Questionnaire and hypothesis mapping

Survey Questionnaire	Q. No.	Research Hypothesis
Total Requirement of Spare/ Retail & Import countries	Q.05	HA01
Comparison of price, market availability & penetration potential for Indian, Chinese and Other countries product	Q.11	HA02
Perception about Quality, Brand Name, Service, Life of product for Indian, Chinese and Other countries product	Q.11	HA 03

(Source :- Researcher's Illustration)

Again though the questions referred for Research Hypothesis is common, but the data collected are of Tyre and wheel w.r.t. different countries i.e. China, India and local country. In addition to that with same questions data regarding various attributes like, Price, Quality, Brand name, Service, Availability in market, Life of product collected and tested to prove various hypothesis.

5.7.3. Statistical Design

After the data have been collected with help of questionnaire and interview method, next important task is to analysis the same. Data is analyzed by 2 methods. First analysis is done by presenting the data in tabular format and wherever required analysis is done with help of Graphs and Histograms. In second phase of analysis, hypothesis testing is done by help of Statistical tests like Two Sample T test, Box plot, Simple linear Regression with help of fitted plot and Pearson Correlation factor.

This being social research of an exploratory nature, researcher would like to test hypothesis at 95% confidence level.

The **interpretation criterion** for testing of hypothesis which is as follows: -

If p value is less than 0.05 – The difference is significant and hence alternative hypothesis is accepted and null hypothesis is rejected.

If p value is greater than 0.05 – The difference is non-significant and null hypothesis is accepted and alternate hypothesis is rejected.

5.8. Period of Study

Data Collected and Analysis done of 5 year period i.e. 2010 -2014, as the actual data collection & research conducted in the period of 2013-14. The actual data is available for 3 years i.e. 2009 -12, however researcher has also estimated forecasted demand for 2013 & 2014 by time series method as well as in discussion with respondent by mail/phone. This study is mainly based on Perception of products from various countries and competition present. The data collected is sufficient to understand present import pattern, perception of product from various countries and competition present in these markets from various countries.

All other statistics are also updated till 2014-15 to represent current economic condition of selected countries and present free trade agreements with India.

CHAPTER – 6

PRESENTATION AND ANALYSIS OF DATA AND HYPOTHESIS TESTING

Presentation and analysis of data is important part of research. In previous chapters researcher has covered Introduction, review of literature and research methodology used for the research. During survey researcher has collected information with way of interview and questionnaire i.e. Primary data as well as Secondary data. In this chapter researcher has presented this collected primary data & secondary data and employed tabulation, cross tabulation apart from various statistical tools and test like %, average, mean, mode etc. This chapter is mainly divided in 2 parts. PART-I deals with presentation of data with help of tables, graphs and PART – II deals with Hypothesis testing with help of statistical methods.

PART –I Presentation Analysis of Data

The data collected through interview, questionnaire and from external agency is presented and analysed in this part with help of tables and graphs. As this research is done in 3 countries i.e. Thailand, Indonesia and Vietnam and based on 2 selected components Commercial Tyre and Commercial Wheel. To facilitate reading and understanding researcher has done the analysis as per country and then automobile component for that country. The primary data is collected through Questionnaire (Annexure A), so it has also analysed in sequence of the question and necessary interpretation is provided after data presentation.

As mentioned in Research Methodology, survey done in 3 countries and 7 dealers/ component manufacturers for each country. These 7 dealers/manufacturers are referred as Respondent 1 to Respondent 7 – R1, R2, R3, R4, R5, R6 & R7. In below presentation and analysis of data the terms used as R1 to R7 to present data of respective respondent. The average value is considered for analysis. The details of respondents are covered in Annexure B.

While analysing the data, the researcher has followed a sequence as per questionnaire. Analysis for commercial Tyre has done first followed by Wheel rim. The sequence of analysis is as follows & same is conducted for Thailand, Indonesia.

- 1) Total Demand of market for Tyre and Wheel rim.
- 2) Total supply to market from various countries
- 3) Requirement of market according to type and size of Tyre and Wheel Rim.
- 4) Brand preferences in the market for Tyre and Wheel rims & vehicles.
- 5) Consumer Priorities while buying Tyre and Wheel rim.
- 6) Market perception for Commercial tyre and Wheel rim w.r.t. Importing country i.e. China, India & other or local country.
- 7) After above analysis researcher has also analysis import duty for Tyres and Wheels while importing from various countries followed by Import-export between India and selected country for automotive component.

6.1. Presentation and Analysis of Thailand Market

The first country for analysis is Thailand market. Thailand is one of the big market selling approx. 1.8 Mn vehicles per annum. Researcher has studied this market in depth for Commercial Tyre and Commercial Wheel rim. Each question is analysed first for Commercial Tyre and then for commercial wheel rim.

6.1.1 Total Spare/Retail Market Demand

The focus of research is mainly on Spare market i.e. requirement of replacement market called Spare/Retail market. With help of this question researcher tried to find out total requirement of spare market for Commercial Tyre and Commercial Wheel Rim. The demand is again divided in to type, size etc. That analysis has also done in detailed in this section. Apart from Demand in market this section also covers supply of Tyre and Wheel in the market.

A) Total Spare Market Demand

Total demand refers to total requirement of Spare market for Tyre and Wheel irrespective of size or type.

A.1.) Commercial tyre

Tyre is one of the fast consuming component in market due to wear and tear, so the demand is expected to be high for commercial tyre. Below are the demand formulated in tabular form as stated by respondent and average calculated. Data up to 2012 is actual demand and 2013 & 2014 are forecasted demand.

Table No. 6.1: Commercial Tyre Spare Market Demand in Thailand

(Figures in ,000)

Year	R1	R2	R3	R4	R5	R6	R7	Avg.
2010	680	700	750	800	400	650	650	661
2011	720	750	800	900	500	700	700	724
2012	800	800	900	1000	600	850	750	814
2013 FC	850	860	950	1120	700	900	800	882
2014 FC	910	900	1010	1210	810	940	850	947

Source: Primary data survey of the dealers/manufacturers

Analysis and Interpretation –

The data collected from 7 respondent shows growth of @ 8-10% on year on year basis in spare market. The market is expected to increase by 40% in 5 years' time span. It is also observed that variation of +/- 25% from the estimation of demand between the respondents. This is mainly due to the respondent is a mix of Dealers and manufacturers. Manufacturers are selling tyres to OEM (Original Equipment Manufacturer) customers as well. Certain customers like Trailer manufacturers can be treated as spare market customer by Tyre manufacturers while Dealers may consider them as OEM customer. So variation of 25% is possible as the estimation is for total demand of country.

Overall average of the demand in 2012 (actual consumption) is 814,236 approx 800K, which is expected to increase up to 950K in following two years, which shows good demand for commercial tyres in Thailand Market and good scope for Tyre manufacturers/importers.

A.2.) Commercial wheels

After understanding demand for Commercial Tyre, let's understand demand for commercial wheel rims also in spare market. Wheel Rim is not as fast moving as Tyre, but still as vehicle requirement are increasing for trailer market and due to overloading, bad road issues there is good demand for wheel rims in Thailand market.

Table No. 6.2: Commercial Wheel Rim Spare Market Demand in Thailand

(Figures in ,000)

Year	R1	R2	R3	R4	R5	R6	R7	Avg.
2010	75	70	80	100	90	80	90	835
2011	95	90	95	110	95	90	95	957
2012	100	100	110	120	100	95	100	103
2013 FC	110	120	125	130	110	110	105	115
2014 FC	125	140	155	145	125	125	120	133

Source: Primary data survey of the dealers/manufacturers

Analysis and Interpretation –

As explained earlier, Wheel rims are not as fast moving as Tyres due to no direct wear and tear, however there is requirement in spare market. The data collected shows growth of @ 10-15% on year on year basis in spare market. The variation of +/- 10% from the estimation of demand between the respondents. This variation is possible as the estimation is for total demand of country.

Overall average of the demand in 2012 (actual consumption) is 103,571 approx 100K, which is expected to increase upto 130K by 2014, which shows good demand for commercial wheel rims in Thailand Market. This is mainly increase in vehicle & Trailer production. Trailers required wheels for their trollies. Also in Asian countries overload is one of the common factor, which increases demand for wheel rim.

B) Total spare market Supply

After understanding total demand, researcher also tried to survey the supply of Tyre and Wheels in Thailand market. Below is the analysis for Total Supply in Spare market

B.1.) Commercial tyres

The main purpose to study the supply is to understand supply through domestic production v/s supply from imports. Commercial tyres are produced locally in Thailand, so it is interesting to understand imports as well.

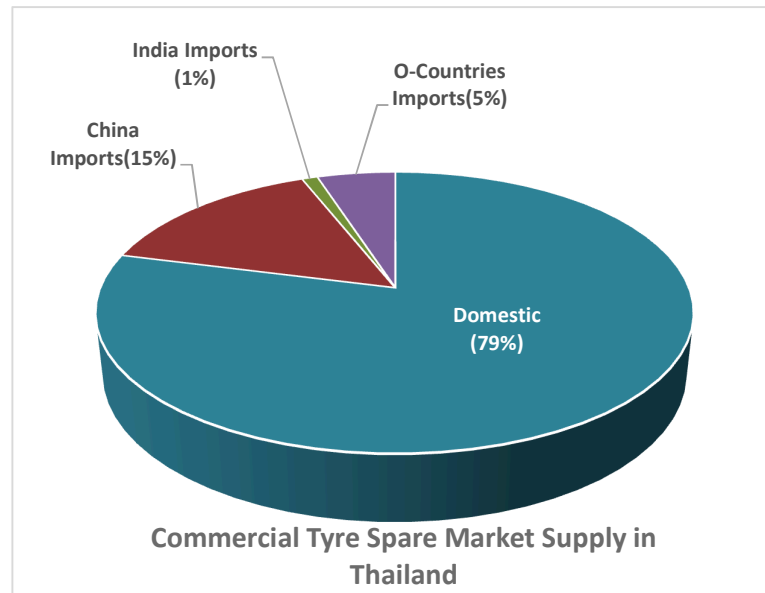
Table No. 6.3: Commercial Tyre Spare Market Supply in Thailand

(Figures in ,000) (Year 2012)

Production	R1	R2	R3	R4	R5	R6	R7	Avg.	% Share
Domestic Production	640	640	720	850	480	680	560	652	79%
Import from China	120	120	108	100	90	170	150	122	15%
Import from India	16	0	0	0	0	25	35	10	1%
Import from other countries	16	40	72	50	30	25	35	38	5%

Source: Primary data survey of the dealers/manufacturers. Data in table shown graphically in Graph no 6.1.

Graph No. 6.1: Commercial Tyre Spare Market Supply in Thailand



Analysis and Interpretation –

In Thailand market, strong presence is there of domestic manufacturers like Michelin, Bridgestone etc. The data is analysed on 2012 actual market position. Almost 80% demand is fulfilled by Domestic production i.e. 640K tyres. Around 15% of

requirement is fulfilled by Chinese Tyres & penetration from Chinese tyres is increasing, mainly due to price advantage of Chinese tyres.

Small presence of other countries like Korean & Indonesian Tyre, which is around 5%. However presence from Indian Tyres is very small i.e. approx. 10K tyre which works out to be 1% of total market. As Domestic manufacturers are strong and dominating market due to their quality and service, it is really difficult for other countries brands to enter in Thailand market.

B.2.) Commercial wheels

As seen above supply of Tyre in Thailand Market. Let’s understand supply of commercial wheel rim in Thailand market and imports in Thailand market. As there is no commercial wheel rim manufacturer in Thailand it is interesting to understand imports from various countries.

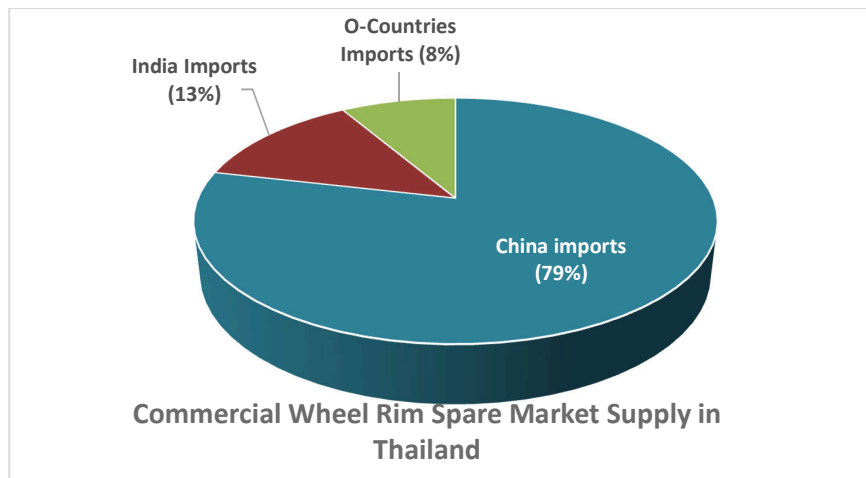
Table No. 6.4: Commercial Wheel Rim Spare Market Supply in Thailand

(Figures in ,000) (Year 2012)

Production	R1	R2	R3	R4	R5	R6	R7	Avg.
Import from China	70	80	85	96	80	75	80	80
Import from India	10	10	15	18	15	10	15	13
Import from other countries	15	10	10	6	5	10	5	8

Source: Primary data survey of the dealers/manufacturers. Data in table shown graphically in Graph no 6.2.

Graph No. 6.2: Commercial Wheel Rim Spare Market Supply in Thailand



Analysis and Interpretation –

In Thailand market presently no domestic production for commercial wheel rims, hence the demand is fulfilled by imports. Imports from China are dominating mainly due to low price and huge availability in market. Also as studied earlier Thailand and China is also having free trade agreement, due to which Chinese wheels are imported duty free, which also gives boost for China imports. Almost 80% market is dominated by Chinese wheel rims.

In spite of China domination other countries like India, Japan, Europe, Indonesia are present with 20%. India's presence is 10%. There is requirement of new technology wheels (covered in next point) for Thailand market, where there is requirement of branded/quality wheels, where Indian, Japanese or European wheels are preferred.

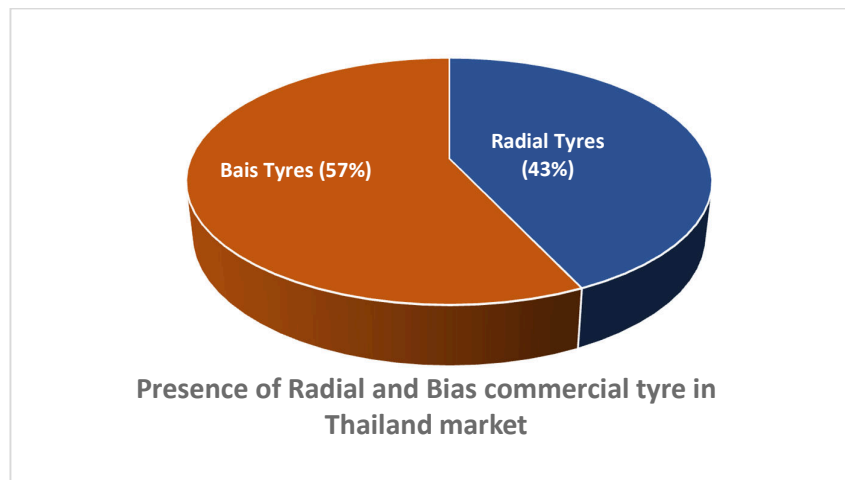
C) Total Spare/Retail Market Demand (According to types)

Tyres are namely classified as Radial Tyre and Bias Tyres. Second classification is Tube type tyres and Tubeless tyres. Basically Radial tyre and Tubeless tyres are new technologies introduced by tyre manufacturers in market. These new types are gaining popularity due to its certain advantages. Here researcher tried to find out penetration of those tyres in the market.

C.1.) Total Spare/Retail Market Demand for Radial and Bias commercial tyre

As explained above Radial Tyres are comparatively new technology than Bias tyres and gaining popularity in market.

Graph No. 6.3: Presence of Radial and Bias commercial tyre in Thailand market



Source: Primary data survey of the dealers/manufacturers.

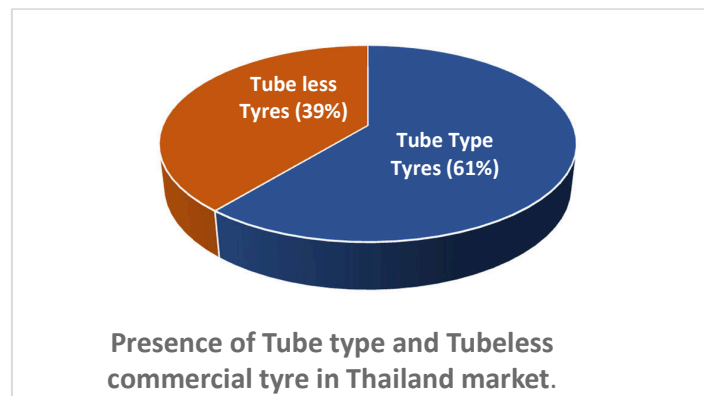
Analysis and Interpretation –

There is always technological advantage & Radial tyres are having certain advantages over bias tyres, hence the market is shifting towards Radial tyre from Bias tyre. So the penetration of Radial tyres is 43% and increasing whereas Bias tyre penetration is 57%, which is reducing. Radial tyres are also required for Tubeless tyres, which is covered in next point.

C.2.) Total Spare/Retail Market Demand for Tube type and Tube less Tyre

After understanding demand for Radial or Bias Tyre, Tubeless tyre are new technology in market, let's understand the penetration of this type of tyres.

Graph No. 6.4: Presence of Tube type and Tubeless commercial tyre in Thailand market



Source: Primary data survey of the dealers/manufacturers.

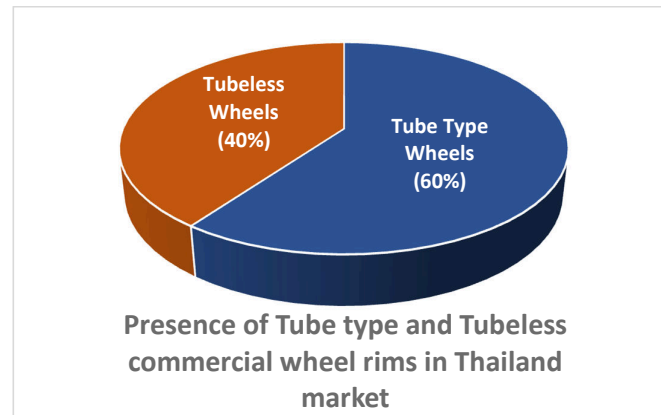
Analysis and Interpretation –

As explained above, there is always acceptance for new technological product. Same is the case for Tube less tyres. In Passenger car industry almost 100% demand is converted into Tubeless tyres, however in Commercial Vehicle market the penetration is increasing. It is almost 39% in 2012 in Thailand market and increasing rapidly. Still majority portion is of Tube type tyres @ 61%.

C.3.) Total Spare/Retail Market Demand for Tube type and Tube less commercial wheel rims.

Like Tyre in commercial wheel rims also there is introduction of Tubeless wheels, which will be suitable for tyres. Let's understand penetration of Tubeless wheels against Tube type wheels.

Graph No. 6.5: Presence of Tube type and Tubeless commercial wheel rims in Thailand market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As the demand for Tubeless tyre is increasing naturally it requires Tubeless wheel rim, hence penetration of Tubeless wheel rim is also increasing in Thailand in market. Above data shows that for around 40% penetration of Tubeless wheel rims and traditional tube type wheels are present with 60%. For Tubeless tyres, need quality wheel rims also, hence as explained earlier Indian/Japnees wheels are preferred over Chines wheel rims.

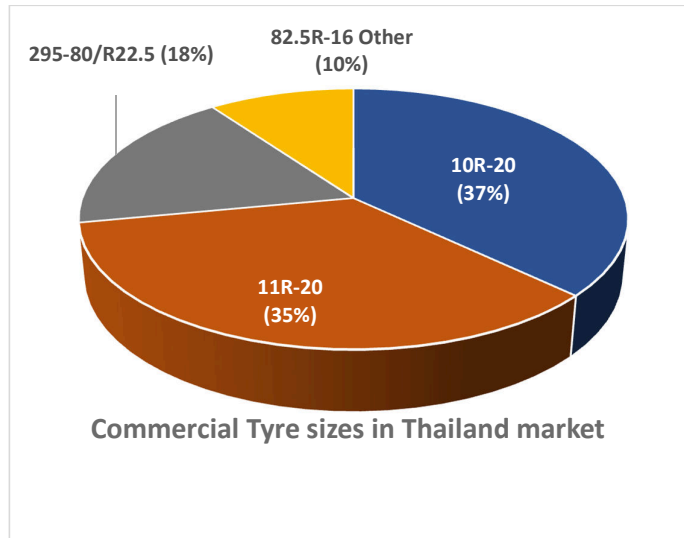
D) Total Spare/Retail Market Demand (According to size)

After major type of wheel rims, researcher also studied the sizes used in this market. As per the vehicle model or load carrying capacity differe tyre and wheels are used on vehicles.

D.1.) Commercial tyres

Tyre size is mainly recommended by OEM as per the vehicle model and load carrying capacity of the vehicle. For e.g. 10R-20, where Internal diameter of wheel rim is 20” and width is 10”. Following is the analysis of Tyres used in Thailand market.

Graph No. 6.6: Presence of commercial Tyre sizes in Thailand market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

Considering Thailand market the tyre size requirements are as shown in the graph.

The penetration are as follows:

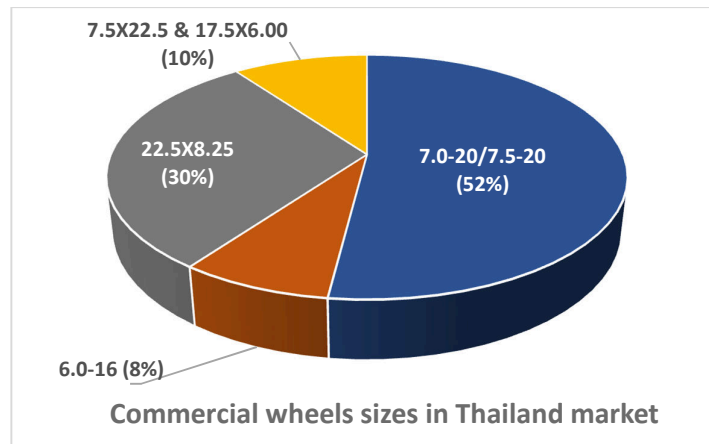
- 1) 10R-20 : 37%,
- 2) 11R22.5 : 35%
- 3) 295-80/R22.5: 18%,
- 4) 82.5R-16 and other : 10%

The major size used is 10R-20, which is tube type tyre and second important size is 11R 22.5 which is Tubeless Tyre. This information is useful for the tyre manufacturers to understand the sizes used in market and check their capability.

D.2.) Commercial wheels

As sizes for tyre varies, same is applicable for wheel rim as well. Wheels are also classified on width and diameter of wheel e.g. 7.5-20, where 20” is Diameter of wheel which fits with 20” Tyre size and 7.5” is width of wheel, which is always lesser than Tyre.

Graph No. 6.7: Presence of Commercial Wheel sizes in Thailand market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

Considering Thailand market the wheel size requirements are as shown in the graph.

The penetration are as follows:

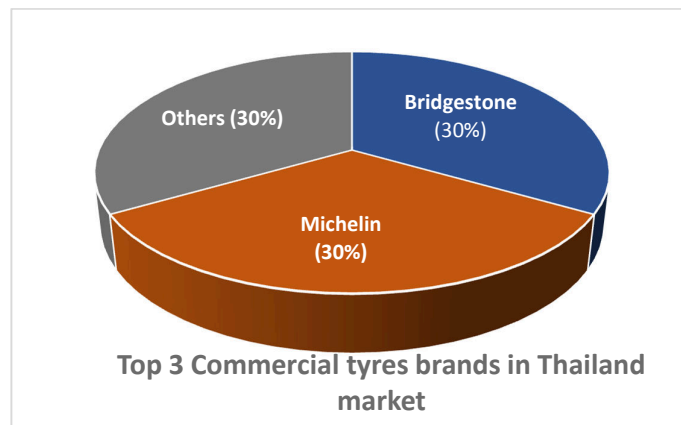
- 1) 7.0/7.5-20 : 52%
- 2) 6.0-16 : 8%
- 3) 22.5 X 8.25 : 30%
- 4) 22.5X7.5/17.5X6.00 : 10%

Around 52% penetration is of 7.0/7.5-20 size wheel rim which is tube type wheel rim and 30% penetration is of 22.5X8.25 size wheel rim which is tubeless wheel rim.

E) Total Spare/Retail Market Demand (According to brand)

Here researcher tried to understand top 3 brand is Thailand market for commercial tyres as well as commercial wheel rims and their share of business.

Graph No. 6.8: Top 3 Commercial Tyres brands in Thailand market



Source: Primary data survey of the dealers/manufacturers.

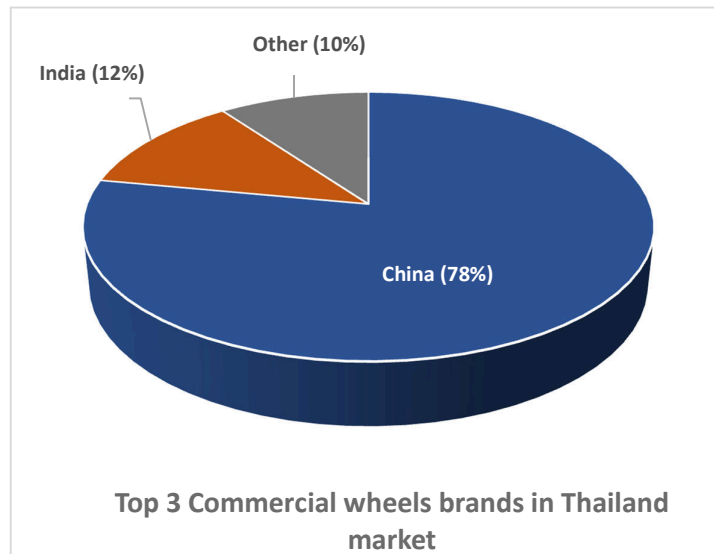
Analysis and Interpretation –

As seen earlier majority of Thailand market is cater by domestic manufacturers. Michelin and Bridgestone are having local manufacturing of tyres in Thailand and they command the market with 30% SOB each. Other tyre like Maxis, D Stone China are in balance 25%.

E.2.) Commercial wheels

Like 3 top brands in Tyre mentioned earlier, below are top 3 brands for Wheel rims as well.

Graph No. 6.9: Top 3 Commercial Wheels brands in Thailand market



Source: Primary data survey of the dealers/manufacturers.

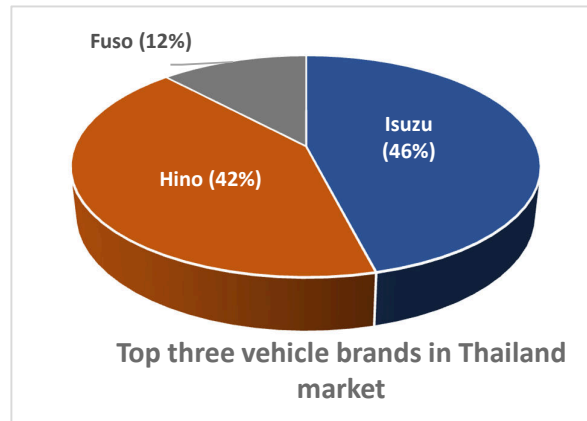
Analysis and Interpretation –

There is no commercial wheel rim manufacturer in Thailand, so all the requirements are catered by imports. So China is dominating with 78% market share, where there are many brands available in market for e.g. ZX, Sunrise etc. Indian wheels with Hayes Brand name is present with 12% market share & other wheels are with approx. 10% market share.

6.1.2. Top 3 Vehicle manufacturers in Thailand Market.

As all the research is related to commercial vehicle, researcher has also collected data regarding top 3 brands or vehicle sold in the Thailand market.

Graph No. 6.10: Top 3 Vehicle manufacturers in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per above graph and data collected Isuzu leading the market with 45% of market share followed by Hino 44% and then Fuso 11%. All these are Japanese vehicle manufacturers.

6.1.3. Consumer Priorities while purchasing Commercial Tyre and Wheel in Thailand market

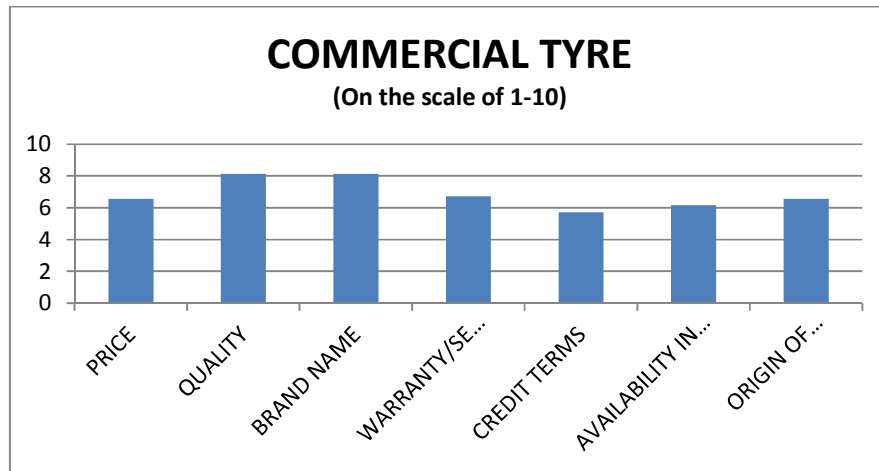
This is important section of the research, where researcher tried to find out market perception regarding Tyre and wheel rims based on 7 different parameters. These parameters are Price, Quality, brand Name, Warranty/service, Credit terms, Availability in Market and Origin of country.

Researcher asked the respondent to rank above 7 parameters on the scale of 1-10 to understand their priorities. Based on feedback the data has tabulated and then graphs are prepared to understand the ranking of each parameter.

A) Ranking of Consumer priorities while purchasing Commercial Tyre.

As mention above average ranking of respondent with respective 7 different parameters are plotted in histogram as below:-

Graph No. 6.11: Ranking of Consumer priorities while purchasing Commercial Tyre in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

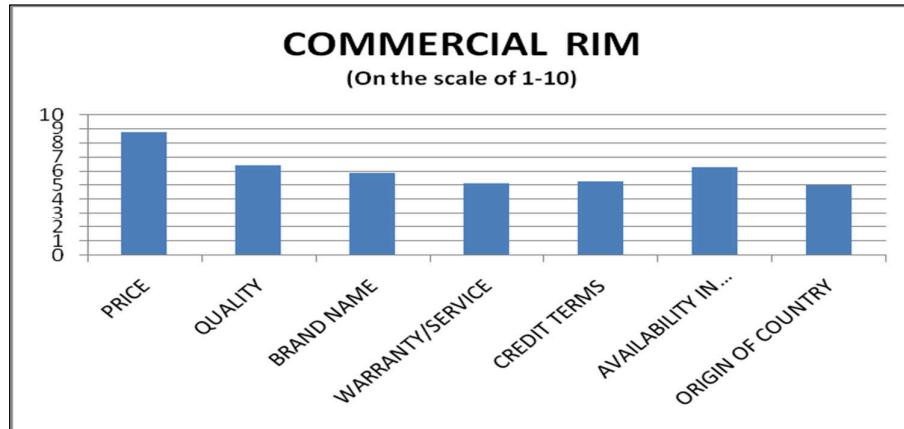
As per data collected in Thailand market, the first priority of consumers while purchasing Commercial tyre is Quality and Brand name. As tyre is costlier part, consumers are more careful about quality and brand name of the tyre while making their buying decision. Warranty/Service is also important and next priority. Warranty normally associates with Brand name/manufacturer name in case of big manufacturers like Michelin & Bridgestone.

Price is next factor which is definitely important, but consumers are ready to pay price for quality if required. As 80% production is by Domestic tyre manufacturers having good availability of market, the other parameters like Origin of country, credit term are rated in the last.

B) Ranking of Consumer priorities while purchasing Commercial Wheel Rims.

Like Tyre researcher has also studied consumer priorities while purchasing Wheel rims & plotted same as below :

Graph No. 6.12: Ranking of Consumer priorities while purchasing Commercial Wheel Rims in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per data collected in Thailand market, the first priority of consumers while purchasing Commercial wheel is Price and availability in market. Exactly opposite to Tyre!! Comparatively wheel is not as costly as Tyre & bit rigid in nature, hence buyers are looking for more cheap option for same. As wheel rims are imported from other countries availability in market is also important parameter while making their buying decision. As market is changing from Tube type to tubeless, quality also started playing important role in buyers' decision. Brand name, Warranty/Service, origin of country are considered as less important as lot of brands are getting imported from China. However for certain customers or Tyre manufacturer's brand name or good quality product is important & they try to balance between price & quality product. Chinese products are dominated due to low price and good availability in market.

6.1.4. Market Perception regarding manufacturing country in Thailand Market

In earlier topic researcher analysed buyer priorities while purchasing Tyre or wheel rim, here researcher would like to present data regarding market perception about manufacturing companies, who are selling commercial wheel rims and tyre in Thailand market. To understand this again researcher has asked respondents to rank 7 parameter on Good/Medium/bad scale or High/medium/Low scale. Then same as converted in to 1-2-3 ranking for tabulation purpose and then graph has plotted. The parameters are

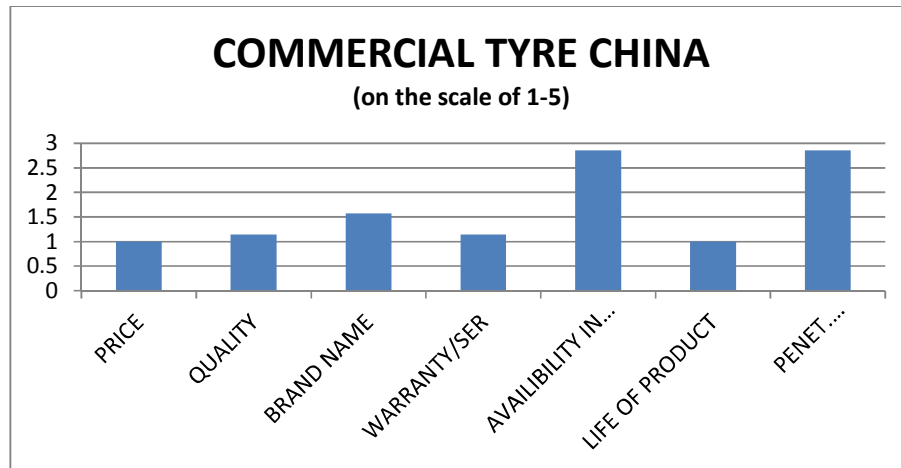
Price, Quality, Brand Name, Warranty/Service, Availability in market, Life of product and penetration potential.

A) Market perception for Commercial tyre.

Let's understand the market perception for various countries w.r.t. important parameters while purchasing commercial tyre.

A.1.) Market Perception of China Tyre

Graph No. 6.13: Market Perception of China Tyre in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

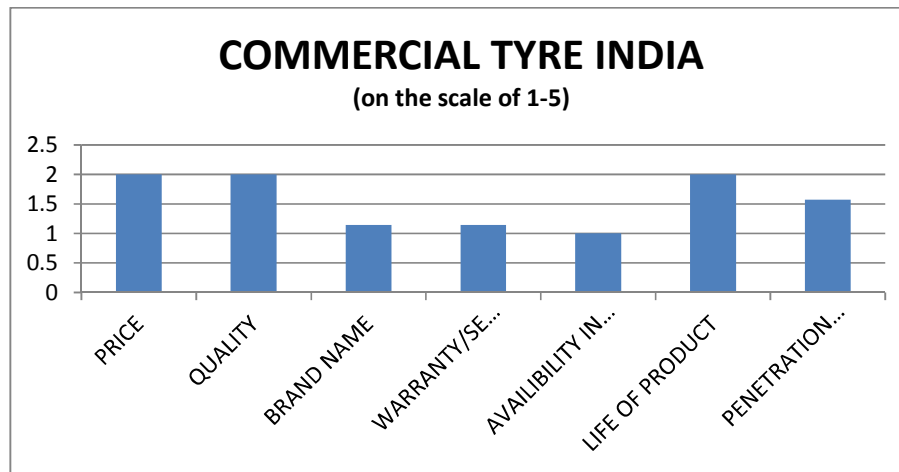
Analysis and Interpretation –

As per the data collected Market Perception for Tyre from China is as below. Same is compare with other in Hypothesis Testing of this chapter.

- Price: Selling at very low price as a strategy.
- Quality: Perception regarding Quality is not good, treated as low Quality product.
- Brand Name: No major Brand name as selling with various brand name in market.
- Warranty/Service: No Warranty or service provided by Chinese Tyre suppliers.
- Availability in Market: Very good on availability in market & it is a strong point of Chinese wheel suppliers to penetrate in market.
- Life of Product : Treated as low life product due to quality
- Penetration Potential: Good potential as price is important parameter and Chinese products are available at low price. Also introduced Radial tyres which has advantage for Chines tyres.

A.2.) Market Perception for India

Graph No. 6.14: Market Perception of India Tyre in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

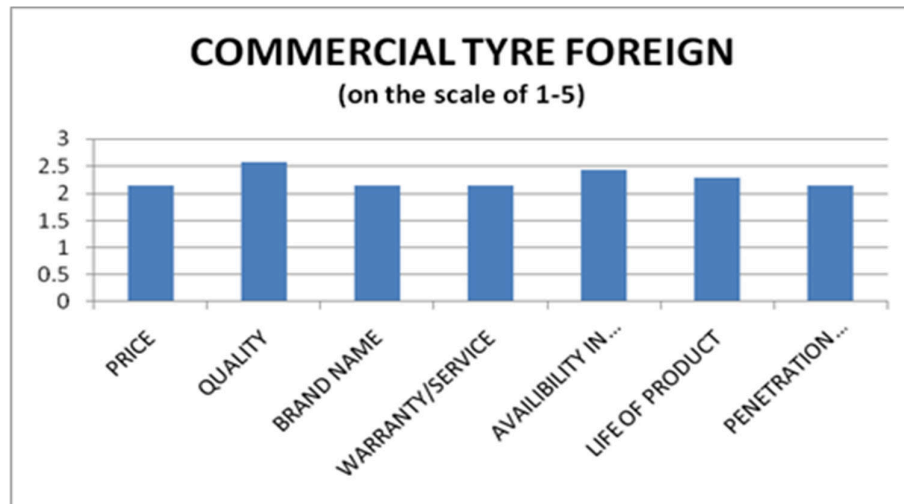
As per the data collected Market Perception for Tyre from India is as below. Same is compare with other in Hypothesis Testing of this chapter.

- Price: Medium pricing strategy. No as cheap as China.
- Quality: Perception regarding Quality is moderate, treated as respectable Quality product.
- Brand Name: No much Brand name exist in Thailand market for Indian Tyre.
- Warranty/Service: No Warranty or service provided by Indian suppliers.
- Availability in Market: No much availability of Indian Product in the market. Available with few dealers.
- Life of Product: Treated as medium life product due to moderate quality.
- Penetration Potential: Comparatively low penetration potential, mainly due to domestic tyres are dominating market. Market is also shifting toward radial tyres, where Indian Tyres are still struggling.

A.3.) Market Perception for domestically produced foreign brand Tyres

There are certain tyre manufacturers which are producing locally in Thailand however they are multinational brands like Michelin, Bridgestone. Market perception about these products is different than Tyre produced locally by local brands like Mexxis etc.

Graph No. 6.15: Market Perception for domestically produced foreign brand Tyres in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

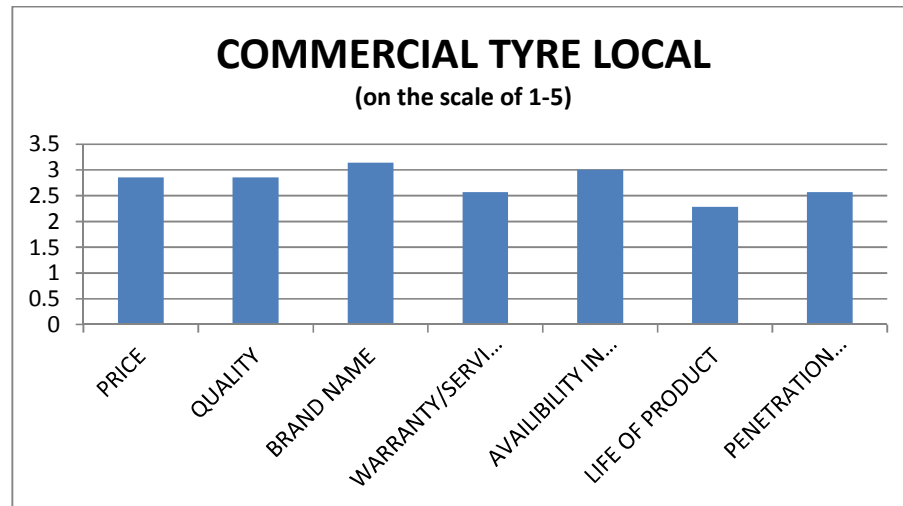
As per the data collected Market Perception for domestic tyre with foreign brands is as below. As explained the rating is done on the scale of 1-3 and all the rating for these tyre is above 2, which is on higher side compare to other tyres.

- Price: High Price strategy, due to Quality, life, Branding of product.
- Quality: Very strong image regarding Quality of product.
- Brand Name: Strongly present in Thailand market & captured majority of market share.
- Warranty/Service: Also good at warranty policies and service.
- Availability in Market: Wide selling network, so present in all parts of country with good availability and variety.
- Life of Product: Proven for life of product and having good life due to technological back up.
- Penetration Potential: Already good in penetration and having good potential for future as well.

A.4.) Market Perception for Domestically produced local brand Tyres

As briefed earlier there are certain brands which are local brands and also produced locally is having some market share.

Graph No. 6.16: Market Perception for domestically produced local brand Tyres in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

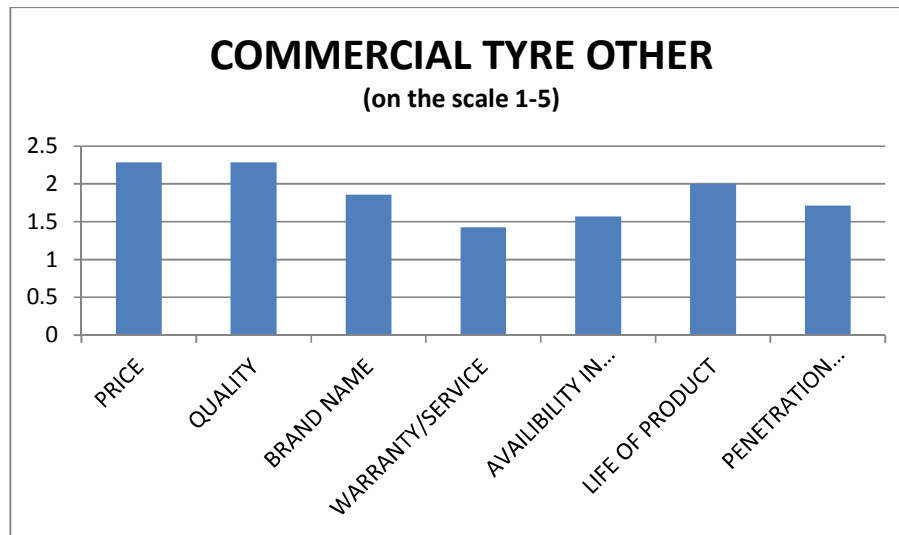
As per the data collected Market Perception for domestic tyre with local brands is as below.

- Price: Comparatively medium price then foreign brands.
- Quality: Good at Quality rating is 2 out of 3.
- Brand Name: Well known in market and consumers are preferring this brand over Chinese in case of cost constraint.
- Warranty/Service: Also good at warranty policies and service.
- Availability in Market: Wide selling network, so present in all parts of country with good availability and variety.
- Life of Product: Moderate life of product, respectable product in market.
- Penetration Potential: Already available in market with sizable presence. Due to balance between quality and price, good penetration potential.

A.5.) Market Perception for Tyres from other countries

Certain brands are available from other countries like Korea or Japan. Below is analysis of their market perception in the market.

Graph No. 6.17: Market Perception for tyres from other countries in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

These are also good products like India and present at small % in market.

- Price: Comparatively medium price then local foreign brands, but higher than China.
- Quality: Good at Quality rating so respectable quality.
- Brand Name: Need to work on brand name as no much popular in market.
- Warranty/Service: Not strong on warranty and service part.
- Availability in Market: Limited availability in market.
- Life of Product: Moderate life of product.
- Penetration Potential: Market is dominated by Domestic production and also from Chinese product, limited penetration potential in market.

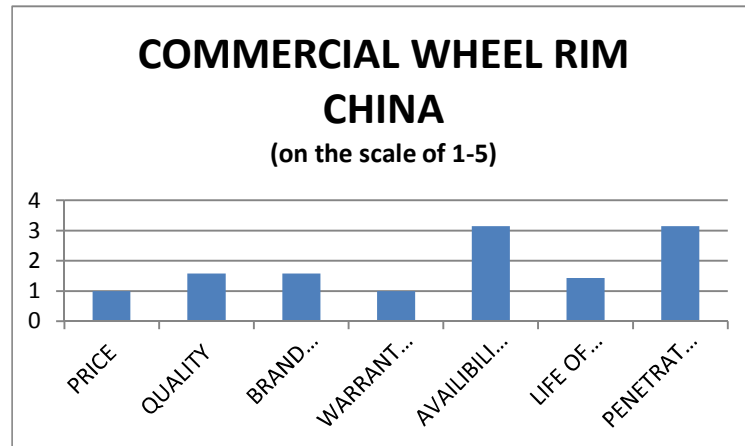
B) Market Perception for Commercial wheels

After understanding Market Perception for Tyres from various countries. Let's understand market perception for Wheels from various countries as well. As explained earlier no commercial wheel manufacturer is present in Thailand, so all market demand is cater by import of wheels, hence it is interesting to understand the perception about imports from various countries.

B.1.) Market Perception for Commercial Wheels from China

As seen earlier lot of imports from China wheels with various brand names like ZX, Sunrise etc.

Graph No. 6.18: Market Perception for commercial wheels from China in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

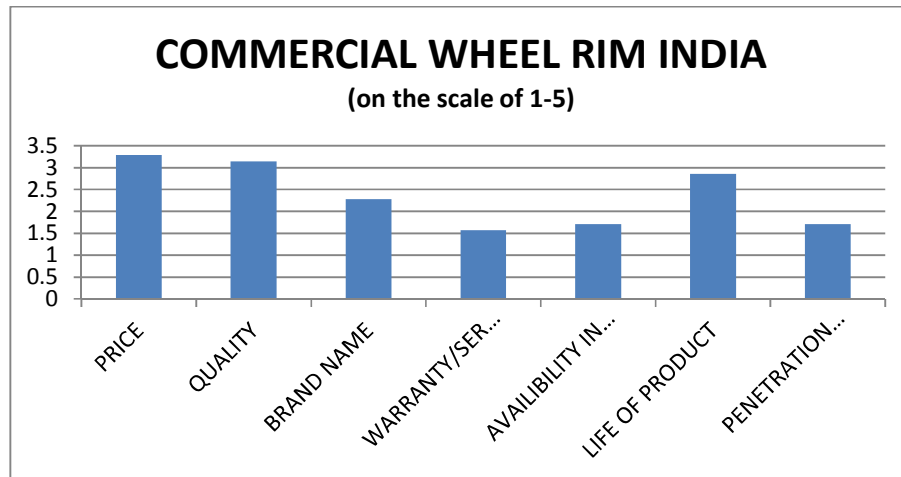
As per the data collected Market Perception for Wheels from China is as below. Same is compare with other in Hypothesis Testing of this chapter.

- Price: Selling at very low price as a strategy & penetrate in market.
- Quality: Perception regarding Quality is not good, treated as low Quality product.
- Brand Name: No major Brand name as selling with various brand name in market.
- Warranty/Service: No Warranty or service provided by Chinese Tyre suppliers.
- Availability in Market: Very good on availability in market & it is a strong point of Chinese wheel suppliers to penetrate in market.
- Life of Product : Treated as low life product due to quality
- Penetration Potential: Good potential as price is important parameter and Chinese products are available at low price. Strong in Tube type wheels, also focusing on Tubeless wheels.

B.2.) Market Perception for Commercial Wheels from India

Around 10% imports of Wheels from India. Below is the analysis of market perception for India wheels.

Graph No. 6.19: Market Perception for commercial wheels from India in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

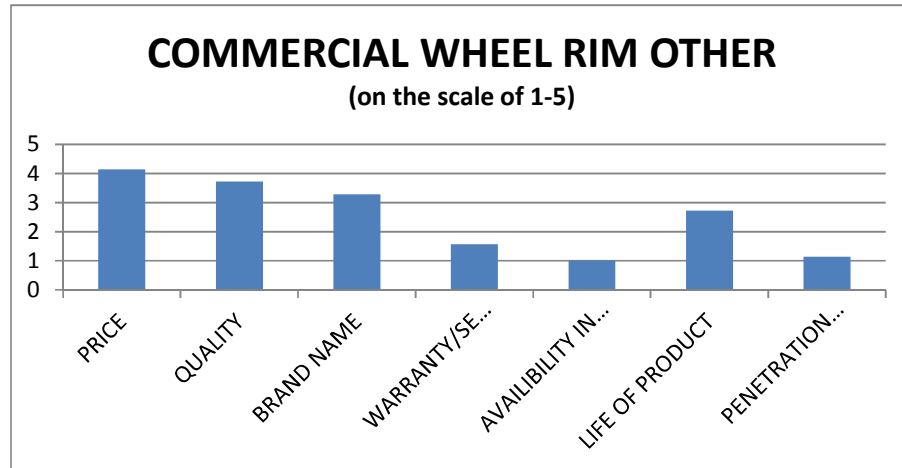
As per the data collected Market Perception for Wheels from India is as below. Same is compare with other in Hypothesis Testing of this chapter.

- Price: Comparatively high on price. No as cheap as China. Higher import duty compare to China.
- Quality: Perception regarding Quality is good, treated as respectable Quality product as promoted by Tyre manufacturers also.
- Brand Name: Medium on brand name. people knows Lemmerz as a brand in market,
- Warranty/Service: Low Warranty or service provided by Indian suppliers.
- Availability in Market: Moderate on availability in market as selling through Tyre manufacturing channels like Michelin, Bridgestone, so available in market.
- Life of Product: Considered very good on life of product, hence good acceptance as quality product.
- Penetration Potential: As no wheel manufacturer in Thailand + low quality impression regarding Chines wheels, moderate scope of penetration with help of Tyre manufacturer as a package or with some segment where Quality product is required.

B.3.) Market Perception for Commercial Wheels from Other countries

Wheels are also getting imported in Thailand from some of other countries like Japan, Indonesia and Korea. However import % is less @ 10%.

Graph No. 6.20: Market Perception for commercial wheels from other countries in Thailand Market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Wheels from India is as below. Same is compare with other in Hypothesis Testing of this chapter.

- Price: Comparatively very high on price. Mainly due to high import duty.
- Quality: Perception regarding Quality is good, as mostly used on OEM vehicle as CKD & sold by OEM's as spare.
- Brand Name: Good on brand name people knows like Topi Japan due to OEM.
- Warranty/Service: Low Warranty or service.
- Availability in Market: Limited availability in market.as Sold moistly with OEM's so not available much for spares.
- Life of Product: Considered very good on life of product, hence good acceptance as quality product.
- Penetration Potential: Due to high price and no much sales channel limited scope for penetration.

6.1.5. Import Duty Structure for Commercial Tyre and Wheels

After understanding market perception for Tyre & Wheels for various countries, it is also important to understand import duty structure for Tyres and wheels imported to Thailand from various countries. Duty plays an important role to decide price. If duty difference is high between 2 countries, certainly one country gets advantage over other country.

Table No. 6.5: Import Duty Structure for Commercial Tyre and Wheels in Thailand market

Country of origin	Import duty for Tyre	Import duty for Wheels
China	10%	0 %
India	7%	30%
Other country Japan	10%	30%

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation

Above table is showing duty difference for imports from various countries.

Regarding commercial tyres import duty from India is 7% compare to 10% from other countries including China. SO due to current Free Trade Agreement, India got advantage over other countries.

Regarding Commercial Wheel rims, exactly opposite case duty from China is 0% whereas duty from India and other countries is 30%. So 20% is big gap for any product to compete in market. China is also having Free Trade agreement like India with Thailand, certain commodities are considered for duty concession, in which Wheel rim is there for China, where as duty for Indian product is also decreasing gradually on year on year basis by approx. 1% every year, however to become competitive this product needs to be included on priority list by Government to reduce duty.

6.1.6. Export and Import between Thailand and India

To understand present Import and export between India and Thailand, researcher has collected secondary data from private agency called Samrudhi data information services. This data is mainly collected from all the ports of India from where import and export is taking place. Again all commodities are classified as Harmonised custom code called HS code, which is unique no for particular category of product. The data is available w.r.t. this HS code. In below analysis researcher has collected data related to HS code – 8708 (Parts and accessories for motor vehicle). Most of auto components

are covered under this code. However these components are for all types of vehicles. This comparison is just to understand balance trade between 2 countries.

A) Export and Import to Thailand from India

Below table shows Export and Import between India and Thailand in INR for HS Code 8708

Table No. 6.6: Export and Import to Thailand from India

parts and accessories for motor vehicles	Export (INR)	Import (INR)
2008	2,44,97,68,893	2,51,34,77,469
2009	3,66,58,30,156	2,65,88,40,159
2010	4,37,30,31,837	3,49,32,62,862
2011	4,96,44,31,126	4,40,79,93,613
2012	5,77,33,46,799	5,80,30,03,862

Source : Data from Samrudhi Data Communication services ltd.

Analysis and Interpretation

Above table shows there in continuous increase in trade between these 2 countries. The effect is more specially after Free Trade Agreement between these 2 countries. Export has increased from 2.4 Bn INR to 5.7 Bn INR within 5 years, however import is more than export i.e. increased from 2.5 Bn INR to 5.8 BN INR. It has been observed that also imports from Thailand got slight higher benefits than Export from India due to free trade agreement.

Summary

In this section researcher has done detailed analysis of Thailand market to understand present demand for Tyres and Wheel, present supply in market. Various types and sizes used in the market, various players in market.

Also studied in detail market perception for Tyres and wheel w.r.t. various parameters like price, quality etc and compare the same with help of tabulation of graphs wherever required. At the end researcher has also presented import duty structure for Tyre and Wheels in Thailand from various countries. Also studied import export between India and Thailand with respective HS Code of part and accessories of motor vehicle.

Similar study now will be conducted with Indonesia and Vietnam market.

6.2. Presentation and Analysis of Indonesia Market

After analysing Thailand market in details next country for analysis is Indonesia. . Indonesia is 2nd biggest market after Thailand in ASEAN countries producing approx. 1.3 Mn vehicles per annum. Researcher has studied this market in depth for Commercial Tyre and Commercial Wheel rim like Thailand market. As the data is similar to Thailand market like selected products are Tyre and Wheels & also focus on imported countries are China, India and local market, introduction in most of the cases is same as Thailand market. Hence in below analysis of Indonesia and then Vietnam market, introduction is given in brief to avoid repetition. One can always refer introduction in Thailand market for details required.

6.2.1. Total Spare/Retail Market Demand

With help of this question researcher tried to find out total requirement of spare market for Commercial Tyre and Commercial Wheel Rim in Indonesia market. The demand is again divided in to type, size etc. Researcher also covered supply of these components below.

A) Total Spare Market Demand

Total demand refers to total requirement of Spare market for Tyre and Wheel irrespective of size or type.

A.1.) Commercial tyre

Below are the demand formulated in tabular form as stated by respondent and average calculated. Data upto 2012 is actual demand and 2013 & 2014 are forecasted demand.

Table No. 6.7: Commercial Tyre Spare Market Demand in Indonesia (Figures in ,000)

Year	R1	R2	R3	R4	R5	R6	R7	Avg.
2010	125	NA	130	120	130	NA	NA	126
2011	150	NA	160	150	160	NA	NA	155
2012	180	NA	190	180	200	NA	NA	187
2013 FC	220	NA	220	210	240	NA	NA	222
2014 FC	245	NA	260	240	270	NA	NA	253

Source: Primary data survey of the dealers/manufacturers

Analysis and Interpretation –

The data collected from respondent shows growth of @ 15-20% on year on year basis in spare market. The market is fast increasing and expected become double in 5 years' time.

Overall average of the demand in 2012 (actual consumption) is 187,500 approx. 200K, which is expected to increase upto 250K by 2014, which shows good demand for commercial tyres in Indonesia market. This is mainly due to increase in mining sector, which requires lot of vehicles + always running under overload condition in mining areas resulted in fast wear and tear of tyres and wheels.

A.2.) Commercial wheels

After understanding demand for Commercial Tyre, let's understand demand for commercial wheel rims also in spare market. As explained earlier due to mining sector overload and bad road issues there is good demand for wheel rims in Indonesia market.

A.2.) Commercial wheels

Table No. 6.8: Commercial wheels Spare Market Demand in Indonesia (Figures in ,000)

Year	R1	R2	R3	R4	R5	R6	R7	Avg.
2010	NA	75	80	75	NA	85	80	79
2011	NA	80	90	90	NA	100	90	90
2012	NA	100	115	100	NA	120	110	109
2013 FC	NA	115	130	120	NA	145	130	127
2014 FC	NA	135	155	140	NA	165	155	149

Source: Primary data survey of the dealers/manufacturers

Analysis and Interpretation –

As explained earlier, good demand of wheel rims in Indonesian market due to mining application. The data collected shows growth of @ 10-15% on year on year basis in spare market. The variation of +/- 10% from the estimation of demand between the respondents. This variation is possible as the estimation is for total demand of country.

Overall average of the demand in 2012 (actual consumption) is 108,750 approx 100K, which is expected to increase upto 150K by 2014, which shows good demand for commercial wheels in Indonesia Market.

B) Total spare market Supply

Let's understand supply of wheel and tyres in Indonesia market. Below is the analysis for Total Supply in Spare market

B.1.) Commercial tyres

The main purpose to study the supply is to understand supply through domestic production v/s supply from imports. Commercial tyres are produced locally in Indonesia, so it is interesting to understand imports as well.

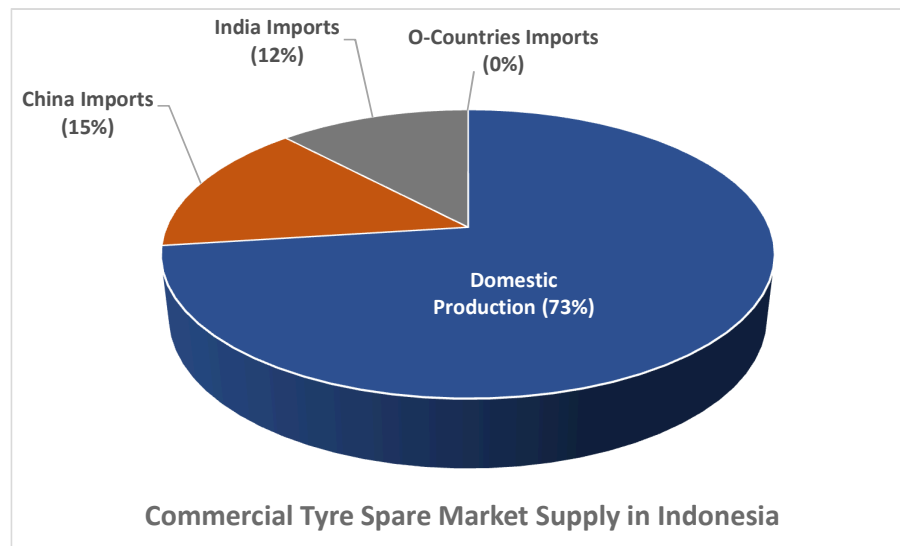
Table 6.9: Commercial Tyre Spare Market Supply in Indonesia

(Figures in ,000)

Production	R1	R2	R3	R4	R5	R6	R7	Avg.
Domestic	135	NA	140	130	140	NA	NA	136
Import from China	22	NA	30	30	30	NA	NA	28
Import from India	25	NA	20	15	30	NA	NA	22
Import from other countries	0	NA	0	0	0	NA	NA	0

Source: Primary data survey of the dealers/manufacturers. Data in table shown graphically.

Graph No. 6.21: Commercial Tyre Spare Market Supply in Indonesia



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

Like Thailand market, in Indonesia market also strong presence is there of domestic manufacturers like Michelin, Bridgestone etc. Almost 70% demand is fulfilled by Domestic production i.e. 140K tyres. Around 15% of requirement is fulfilled by Chinese Tyres & penetration from Chinese tyres is increasing, mainly due to price advantage of Chinese tyres.

Indian Tyres are also present with good share of business like 15%. As Indonesian market is still dominated by Bias tyre due to mining application, Indian manufacturer like MRF is holding good position and selling good 25-30K tyres in Indonesian market.

B.2.) Commercial wheels

Also let's understand supply of commercial wheel rim in Indonesia market and imports in Indonesian market.

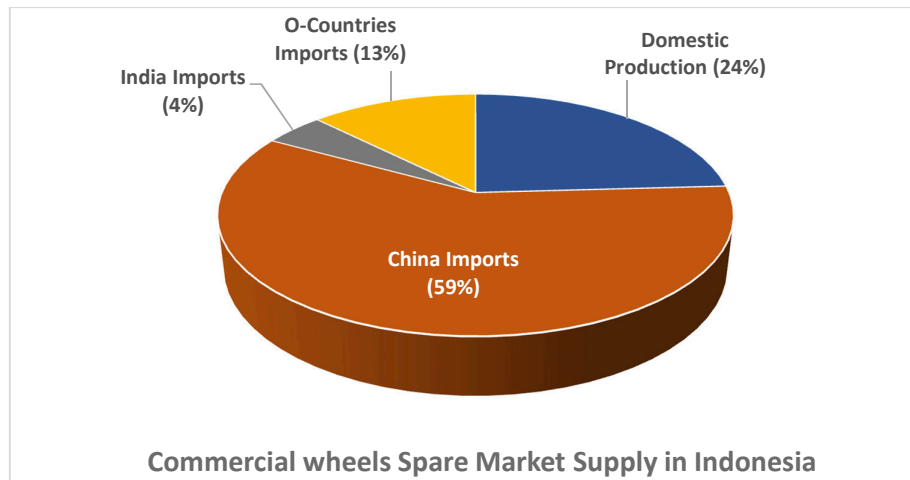
B.2.) Commercial wheels

Table 6.10: Commercial wheels Spare Market Supply in Indonesia

Production	R1	R2	R3	R4	R5	R6	R7	Avg.
Domestic	NA	25	25	20	NA	35	30	27
Import from China	NA	60	70	60	NA	70	70	66
Import from India	NA	5	5	5	NA	5	5	5
Import from other countries	NA	10	15	15	NA	15	15	14

Source: Primary data survey of the dealers/manufacturers.

Graph No. 6.22: Commercial wheels Spare Market Supply in Indonesia



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

In Indonesia market 2 wheel manufacturers are present namely Palingda and Auto Korindo. However they can produce upto 20” wheel size and catering to 25% demand of the market. Around 50% market is dominated by Chinese product. Imports from China are dominating mainly due to low price and huge availability in market.

Inspite of domestic production & China domination other countries like India, Japan, Turkey are present with 15-20%. India’s presence is very small @ 4-5%. There is requirement heavy duty wheel with better life in mining sector of Indonesia, where there is requirement of good wheels, where Indian and Turkish wheels are preferred.

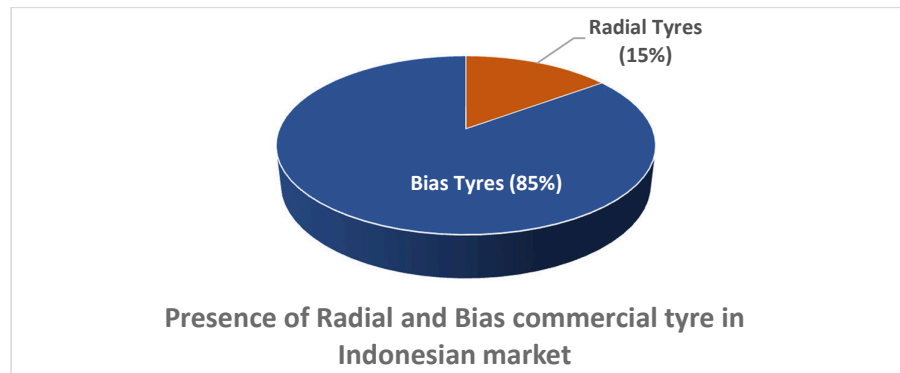
C) Total Spare/Retail Market Demand (According to types)

As explained in Thailand market 6.1.1.1.C1, Tyres are namely classified as Radial Tyre and Bias Tyres. Second classification is Tube type tyres and Tubeless tyres. Here researcher tried to find out penetration of those tyres in the market.

C.1.) Total Spare/Retail Market Demand for Radial and Bias commercial tyre

As explained above Radial Tyres are comparatively new technology than Bias tyres and gaining popularity in market.

Graph No. 6.23 : Presence of Radial and Bias commercial tyre in Indonesia market



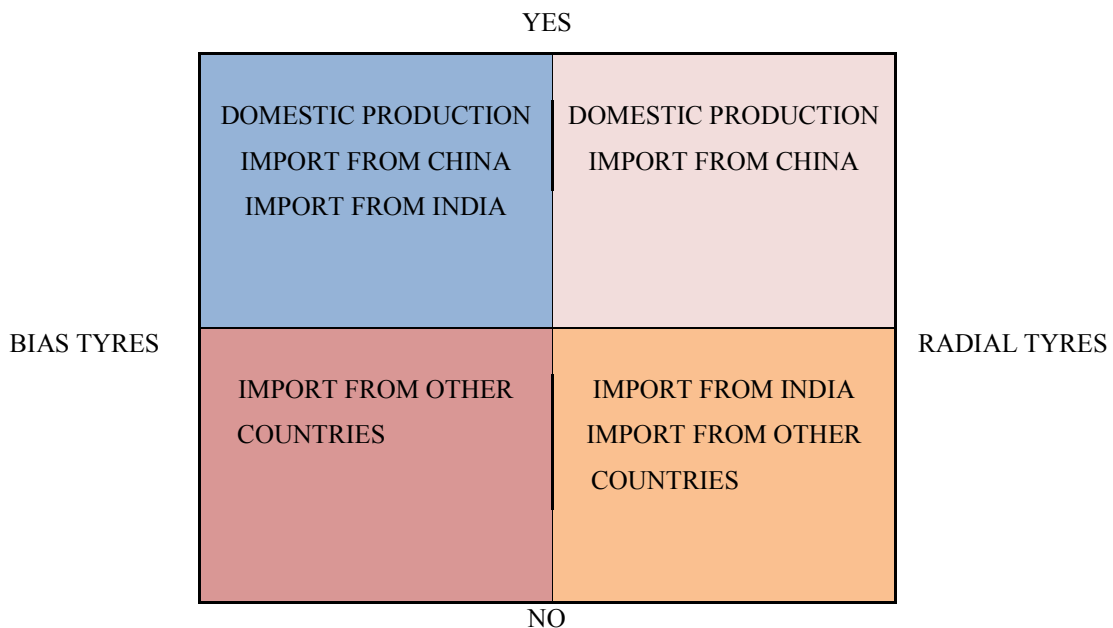
Source: Primary data survey of the dealers/manufacturers.

Table No. 6.11: Presence of Radial and Bias commercial tyre in Indonesia market

	DOMESTIC PRODUCTION	IMPORT FROM CHINA	IMPORT FROM INDIA	IMPORT FROM OTHER COUNTRIES
RADIAL TYRES	Y	Y	N	N
BIAS TYRES	Y	Y	Y	N

Source: Primary data survey of the dealers/manufacturers.

Fig No – 6.1 Radial –Bias Tyre production comparison



Source: Primary data survey of the dealers/manufacturers.

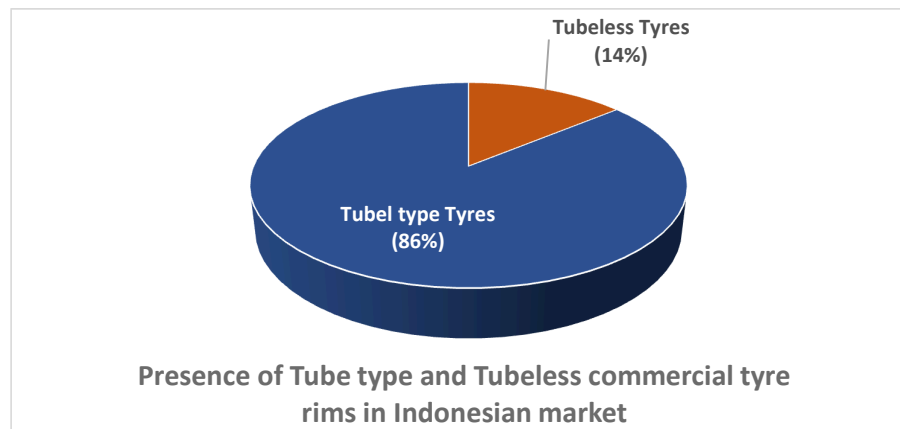
Analysis and Interpretation

Radial tyres are having certain advantages over Bias tyre, hence market is expected to shift from Bias to Radial. However due to heavy application in Indonesian market, it is not shifting as fast as Thailand market. Penetration of Radial tyres is 15% and increasing whereas Bias tyre is still dominating with 85%. Also as shown in above graph Radial tyres are produced locally and imported from China, where as Bias tyres are produced locally, imported from China, India and other countries as well.

C.2.) Total Spare/Retail Market Demand for Tube type and Tube less commercial tyre

Similar to Radial tyres, Tubeless tyre are new technology in market, lets understand the penetration of this type of tyres.

Graph No. 6.24: Presence of Tube type and Tubeless commercial tyre in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

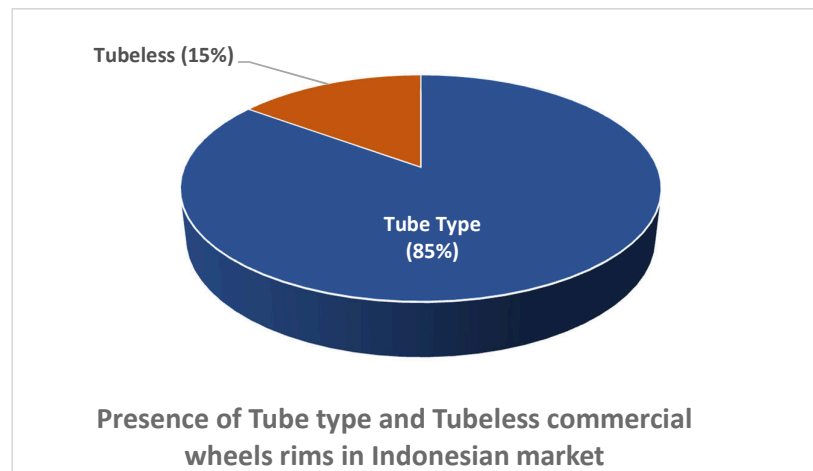
Analysis and Interpretation –

As explained above, there is always acceptance for new technological product. Same is the case for Tube less tyres. However in Commercial Vehicle market the penetration is increasing. It is almost 14-15% in 2012 in Indonesian market and increasing gradually. Still majority portion is of Tube type tyres @ 85-86%.

C.3.) Total Spare/Retail Market Demand for Tube type and Tube less commercial wheel rims.

Like Tyre in commercial wheel rims also there is introduction of Tubeless wheels, which will be suitable for tyres. Let's understand penetration of Tubeless wheels against Tube type wheels.

Graph No. 6.25: Presence of Tube type and Tubeless commercial wheel rims in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As the demand for Tubeless tyre is increasing naturally it requires Tubeless wheel rim, hence penetration of Tubeless wheel rim is also increasing in Indonesian in market. Above data shows that for around 15% penetration of Tubeless wheel rims and traditional tube type wheels are present with 85%.

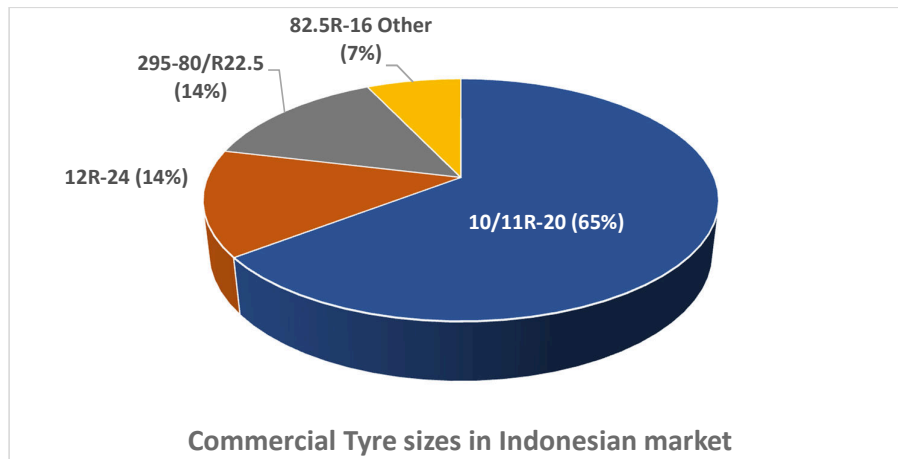
D) Total Spare/Retail Market Demand (According to size)

After major type of wheel rims, researcher also studied the sizes used in this market. As per the vehicle model or load carrying capacity differ tyre and wheels are used on vehicles.

D.1.) Commercial tyres

Tyre size is mainly recommended by OEM as per the vehicle model and load carrying capacity of the vehicle. For e.g. 10R-20, where Internal diameter of wheel rim is 20” and width is 10”. Following is the analysis of Tyres used in Indonesia market.

Graph No. 6.26: Presence of Commercial tyre sizes in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

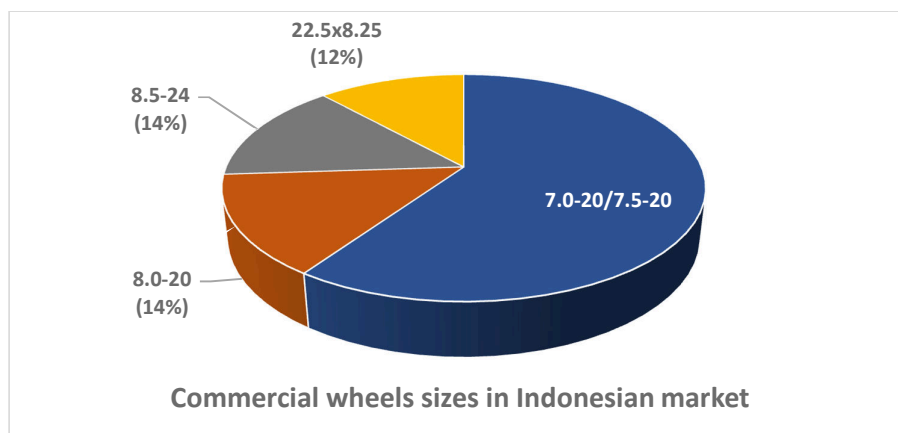
Analysis and Interpretation –

Considering Indonesian market the major size used is 10R-20, which is tube type tyre around 65%. Second important size is 12R 24, again Tube type Tyre requires for mining application which is @ 15%. Tubeless Tyre 295-80/R 22.5 is also 15%. This information is useful for the tyre manufacturers to understand the sizes used in market and check their capability.

D.2.) Commercial wheels

Commercial wheel sizes already explained in 6.1.1.1.D2. Below is various sizes of wheels used in Indonesian market.

Graph No. 6.27: Presence of Commercial wheels sizes in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

- 1) 7.0/7.5-20 : 60%
- 2) 8.0-20 : 15%
- 2) 8.5-24 : 15%
- 4) 22.5X8.25 : 10%

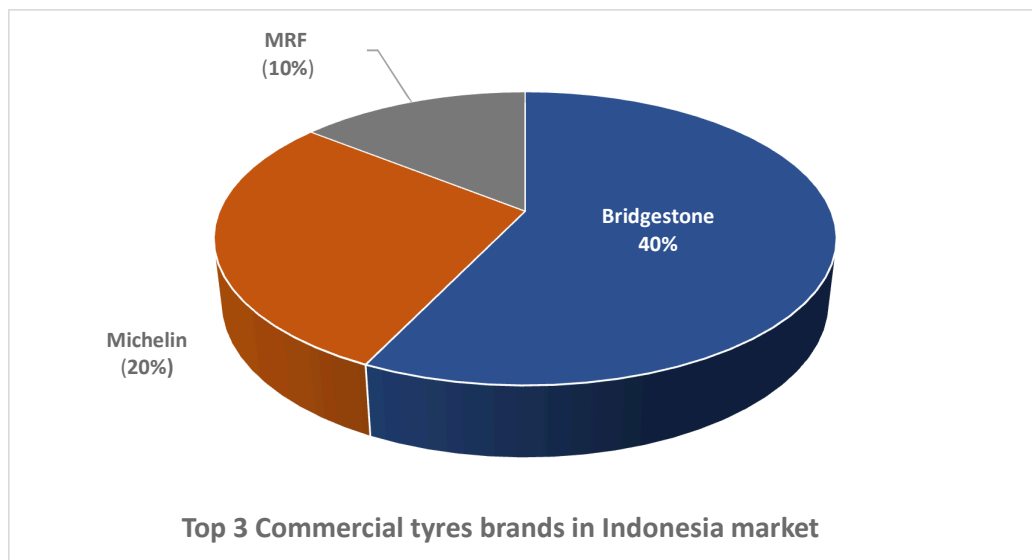
Around 60% penetration is of 7.0/7.5-20 size wheel rim which is tube type wheel rim and 15% penetration is of 22.5X8.25 size which is wheel rim which is tubeless wheel rim. However good penetration of 8.0-20” & 8.5-24” Tube type wheel rims required for vehicle running in mining area.

E) Total Spare/Retail Market Demand (According to brand)

Major Tyre brand in Indonesia market.

E.1.) Commercial tyres

Graph No. 6.28: Top 3 Commercial tyres brands in Indonesia market



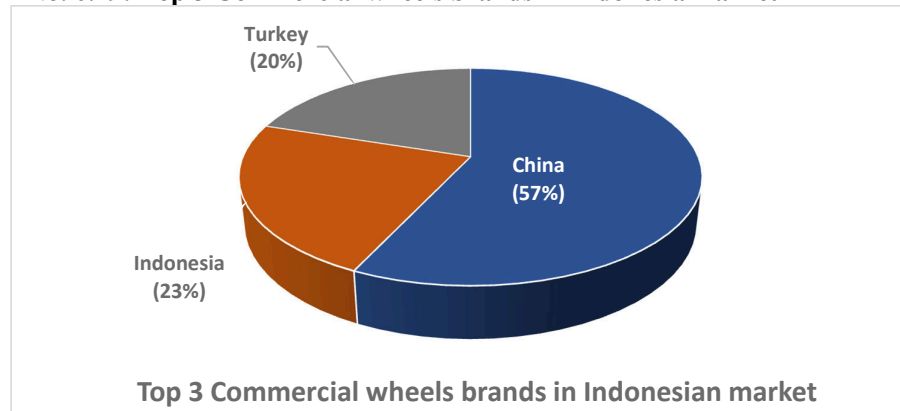
Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As seen earlier majority of Indonesian market is cater by domestic manufacturers. Bridgestone and Michelin are having local manufacturing of tyres in Thailand and they command the market with 40% & 20% SOB respectively. Next preferred brand is MRF from India with 10% SOB.

E.2.) Commercial wheels

Graph No. 6.29: Top 3 Commercial wheels brands in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

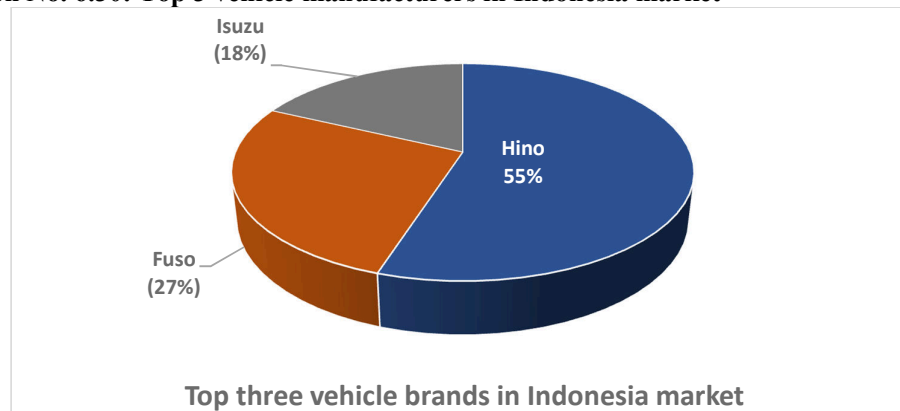
Analysis and Interpretation –

Though there are 2 wheel manufacturers in Indonesia, still majority wheels used are Chinese due to low price and availability in wide range. Local manufacturer Palingda and Auto Korindo are producing tube type wheels upto 20” and mainly focusing to supply to OEM, hence their presence is limited to 10% each in spare market. Wheels from Turkey having 20% SOB mainly in mining area due to life and quality of wheels. Indian wheels have recently entered & having 4-5 % SOB, trying to penetrate in market.

6.2.2. Top 3 Vehicle manufacturers in Indonesia Market.

As all the research is related to commercial vehicle, researcher has also collected data regarding top 3 brands or vehicle sold in the Indonesia market.

Graph No. 6.30: Top 3 vehicle manufacturers in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

Indonesia is also dominated by Japanese vehicle manufacturers. As per above graph and data collected Hino leading the market with 55% of market share followed by Fuso 27% and then Isuzu 18%.

6.2.3. Ranking of different characteristics on a scale on 1-10

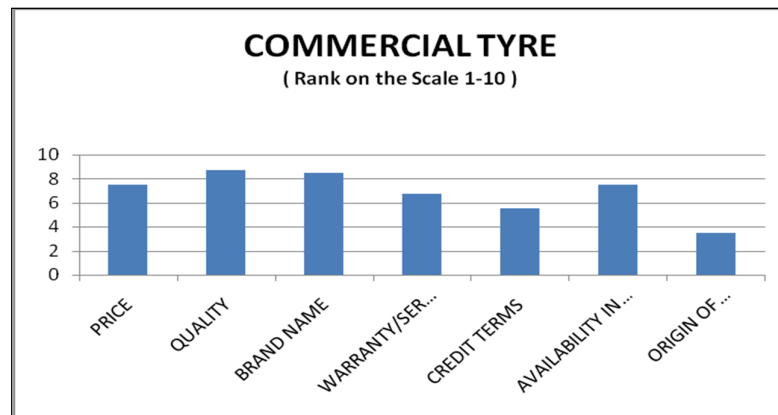
Consumer Priorities while purchasing Commercial Tyre and Wheel in Indonesia market

As already briefed in 6.1.3 section researcher tried to find out market perception regarding Tyre and wheel rims based on 7 different parameters. Below is detailed analysis of ranking done by respondent.

A) Ranking of Consumer priorities while purchasing Commercial Tyre.

As mention above average ranking of respondent with respective 7 different parameters are plotted in histogram as below:-

Graph No. 6.31: Ranking of Consumer priorities while purchasing Commercial Tyre in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per data collected in Indonesia market, the first priority of consumers while purchasing Commercial tyre is Quality and Brand name. As tyre is costlier part, consumers are more careful about quality and brand name of the tyre while making their buying decision. Second important parameter is availability in market and price

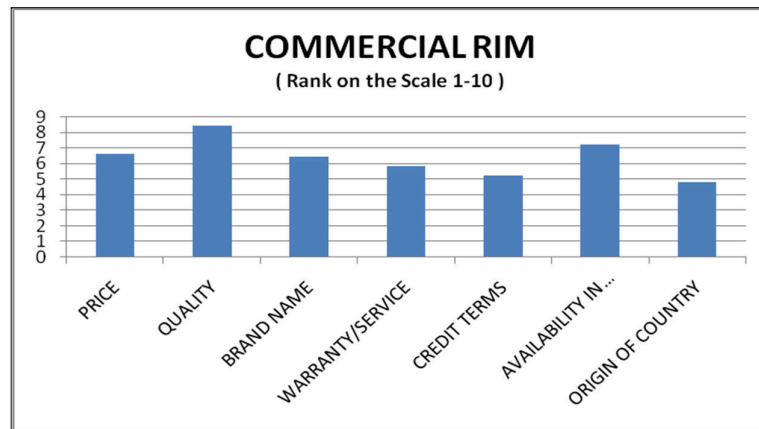
of tyre. Warranty normally associates with Brand name/manufacturer name in case of big manufacturers like Michelin & Bridgestone.

As 60% production is by Domestic tyre manufacturers having good availability of market, the other parameters like Origin of country, credit term are rated in the last.

B) Ranking of Consumer priorities while purchasing Commercial Wheel Rims.

Like Tyre researcher has also studied consumer priorities while purchasing Wheel rims & plotted same as below:

Graph No. 6.32: Ranking of Consumer priorities while purchasing Commercial wheel rims in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per data collected in Indonesia market, the first priority of consumers while purchasing Commercial wheels rim is Quality, as per end users wheel is lasting hardly for 6 months if not a good quality product in market. Hence for mining application consumers are preferring good quality product. Second important factor is availability in market followed by Price. Limited options available with good quality product, hence consumers are preferring product whichever easily available at low price. Next preference is given to Brand name, Warranty/Service provided by wheel supplier and also origin of country. However as mentioned above for mining application good quality product is important with heavy duty application. Chinese products are dominated due to low price and good availability in market.

6.2.4. Market Perception regarding manufacturing country in Indonesia Market

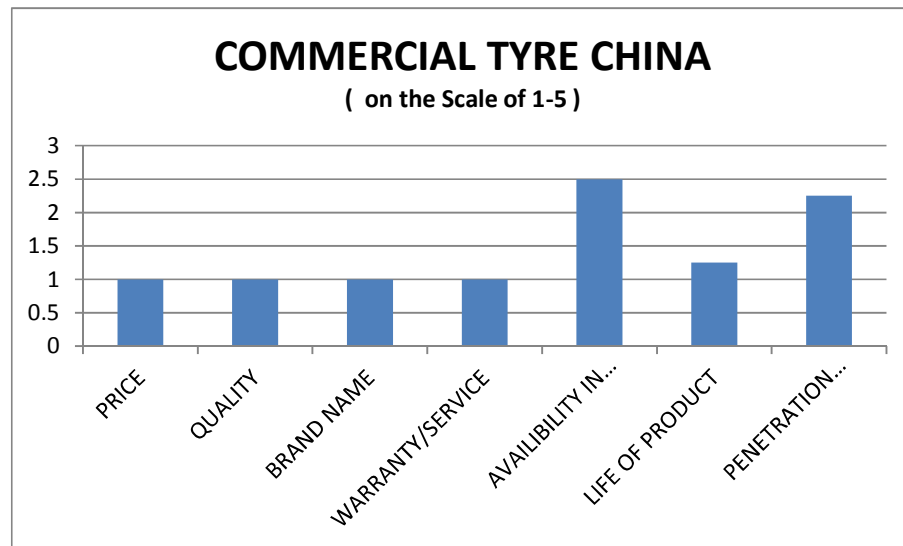
After understanding consumer priorities while purchasing any product, next exercise done by researcher is to understand market perception of manufacturing country. The methodology is explained in topic no 6.1.4 in Thailand market section.

A) Market perception for Commercial tyre.

Let's understand the market perception for various countries w.r.t. important parameters while purchasing commercial tyre.

A.1.) Market Perception of China Tyre

Graph No. 6.33: Market Perception of China Tyre Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

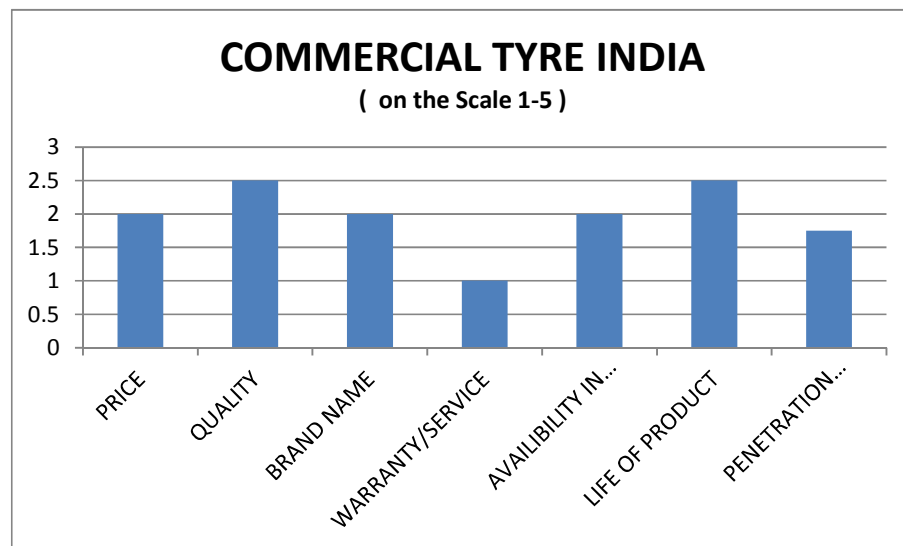
As per the data collected Market Perception for Tyre from China is as below. Same is compare with other in Hypothesis Testing of this chapter.

- Price: Selling at very low price as a common strategy.
- Quality: Perception regarding Quality is not good, treated as low Quality product.
- Brand Name: No major Brand name as selling with various brand name in market.
- Warranty/Service: No Warranty or service provided by Chinese Tyre suppliers.
- Availability in Market: Very good on availability in market & it is a strong point of Chinese wheel suppliers to penetrate in market.

- Life of Product: Treated as low life product due to quality, hardly last for 3-4 months.
- Penetration Potential: Good potential as price is important parameter and Chinese products are available at low price. Also introduced Radial tyres which has advantage for Chinese tyres.

A.2.) Market Perception for India

Graph No. 6.34: Market Perception of India in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Tyre from India is as below. Same is come with other in Hypothesis Testing of this chapter.

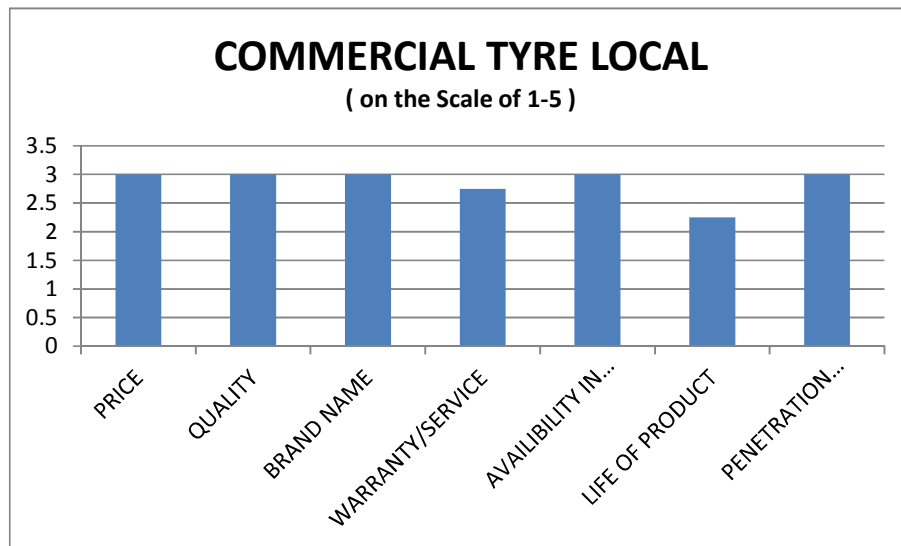
- Price: Medium pricing strategy. No as cheap as China.
- Quality: Perception regarding Quality is good for Bias tyres, treated as respectable Quality product.
- Brand Name: Brand name is also good, MRF tyres are well known brand in Indonesian market.
- Warranty/Service: No Warranty or service provided by Indian suppliers.
- Availability in Market: good dealer network to sell Indian product, hence availability is good in the market.
- Life of Product: Comparatively good life of product, hence good image in market.

- Penetration Potential: Presently medium penetration & also good chances to retain market share. However market is also shifting toward radial tyres, where Indian Tyres are still struggling, need to focus on same.

A.3.) Market Perception for domestically produced foreign brand Tyres

There are certain tyre manufacturers which are producing locally in Indonesia however they are multinational brands like Michelin, Bridgestone. Market perception about these products is different and important to understand same.

Graph No. 6.35: Market Perception for domestically produced foreign brand Tyres Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for domestic tyre with foreign brands is as below.

- Price: High Price strategy, due to Quality, life, Branding of product.
- Quality: Very strong image regarding Quality of product.
- Brand Name: Strongly present in Indonesia market & captured majority of market share.
- Warranty/Service: Also good at warranty policies and service.
- Availability in Market: Wide selling network, so present in all parts of country with good availability and variety.

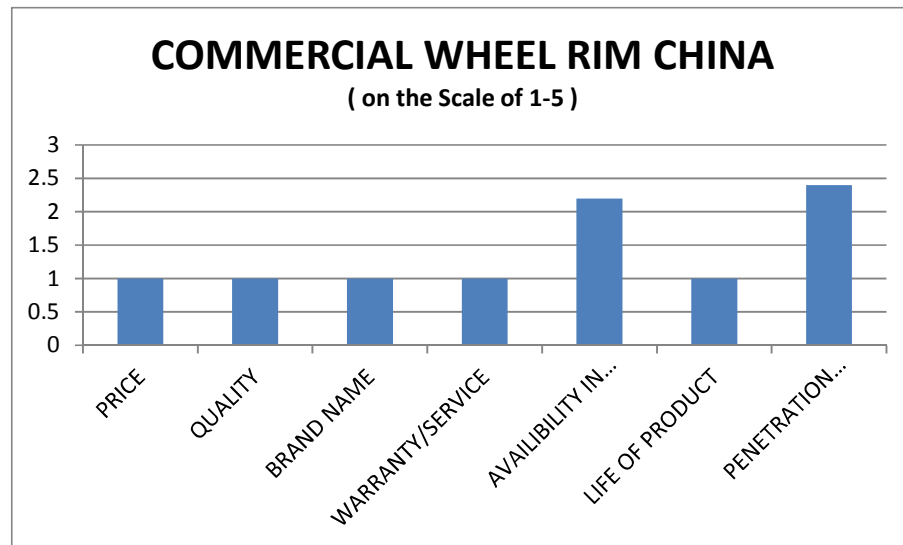
- Life of Product: Comparatively good life of product, as considering application of tyres, it is expected to get reduced life.
- Penetration Potential: Already good in penetration and having good potential for future as well.

B) Market Perception for Commercial wheels

After understanding Market Perception for Tyres from various countries. Let's understand market perception for Wheels from various countries as well.

B.1.) Market Perception for Commercial Wheels from China

Graph No. 6.36: Market Perception for Commercial Wheels from China in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Wheels from China is as below. Same is compare with other in Hypothesis Testing of this chapter.

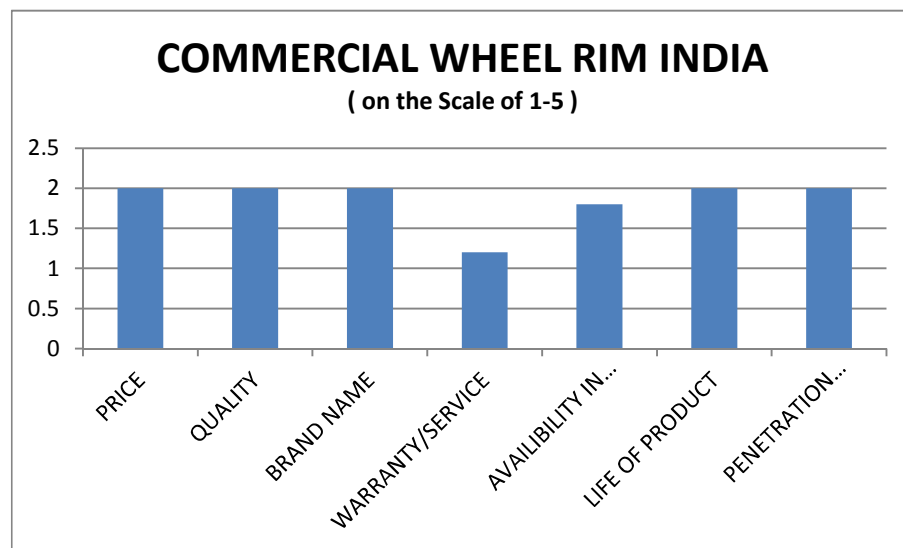
- Price: Selling at very low price as a strategy & penetrate in market.
- Quality: Perception regarding Quality is not good, treated as low Quality product.
- Brand Name: No major Brand name as selling with various brand name in market.
- Warranty/Service: No Warranty or service provided by Chinese Tyre suppliers.
- Availability in Market: Very good on availability in market & it is a strong point of Chinese wheel suppliers to penetrate in market.

- Life of Product: Treated as low life product due to quality. Wheel last for 3-4 months.
- Penetration Potential: Good potential as price is important parameter and Chinese products are available at low price. Strong in Tube type wheels, also focusing on Tubeless wheels.

B.2.) Market Perception for Commercial Wheels from India

Small imports @ 4-5% of Wheels from India. Below is the analysis of market perception for India wheels.

Graph No. 6.37: Market Perception for Commercial Wheels from India in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Wheels from India is as below. Same is compare with other in Hypothesis Testing of this chapter.

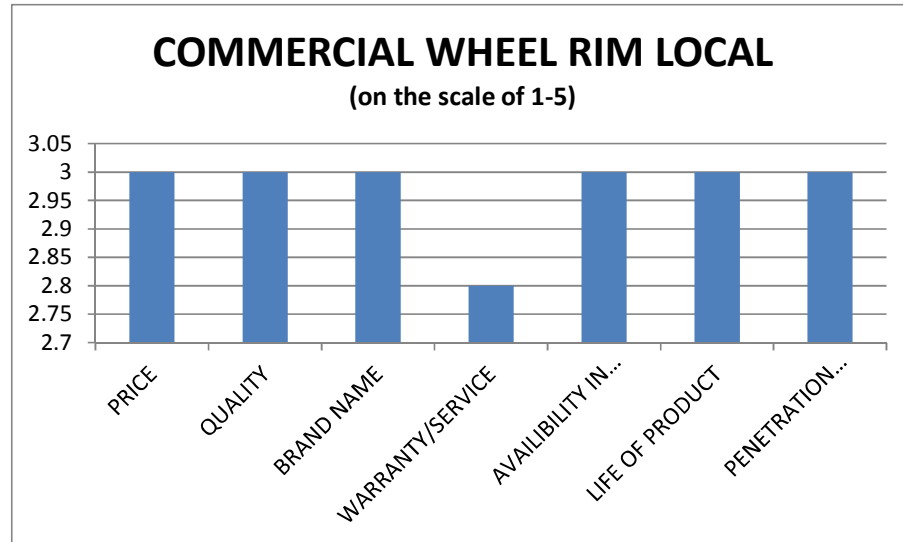
- Price: Comparatively high on price. No as cheap as China. Introduced heavy duty wheel in market.
- Quality: Perception regarding Quality is good, treated as respectable Quality product as used in mining application for better life.
- Brand Name: Medium on brand name. people knows Lemmerz as a brand in market,
- Warranty/Service: Low Warranty or service provided by Indian suppliers.

- Availability in Market: Comparatively low on availability in market, need to increase spread in market.
- Life of Product: Considered good on life of product, hence good acceptance as quality product in mining area with avg life of 1 year.
- Penetration Potential: As customer requires heavy duty good quality wheels sometimes customise wheels for specific application good potential for penetration in the market.

B.3.) Market Perception for Commercial Wheels from Other countries

Good imports from Turkey @ 20% due to demand from mining area application.

Graph No. 6.38: Market Perception for Commercial Wheels from Other countries in Indonesia market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Wheels from other countries (mainly Turkey) is as below:-

- Price: Comparatively very high on price. Mainly import from Turkey.
- Quality: Perception regarding Quality is good, used for special application.
- Brand Name: Good on brand name. People knows Turkish wheel like Jantas/Jantsa etc.
- Warranty/Service: Low Warranty or service.
- Availability in Market: Presently supplying around 15 K wheels, hence sufficient availability in market.

- Life of Product: Considered very good on life of product, hence good acceptance as quality product.
- Penetration Potential: Due to demand for good quality product is increasing good penetration potential.

6.2.5. Import Duty Structure for Commercial Tyre and Wheels

It is also important to understand import duty structure for Tyres and wheels imported to Indonesia from various countries. Duty plays an important role to decide price. If duty difference is high between 2 countries, certainly one country gets advantage over other country.

Table No. 6.12: Import Duty Structure for Commercial Tyre and Wheels in Indonesia market

Country of origin	Import duty for Tyre	Import duty for Wheels
China	15%	15%
India	15%	15%
Other country Turkey	15%	15%

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation

Above table shows for all tyre and wheels import duty for China and India even for other countries is 15%, except ASEAN country import. Though it is same for all countries, local manufacturers get advantage of same. No major advantage of FTA between India and ASEAN countries. Need to approach government appropriately to prioritise reduction in duty.

To all imports to Indonesia, manufacturer needs to apply for SNI certification, which is mandatory to import in Indonesia. So before import manufacturer needs to ensure such certification for their product.

6.2.6. Export and Import between Indonesia and India

As explained in topic no 6.1.6. along with Thailand researcher has also studied Export-Import between India and Indonesia, the criteria and methodology is same as used for Thailand and explain in 6.2.1. for HS code 8708(parts and accessories for motor vehicle) as below.

A) Export and Import to Indonesia from India

Below table shows Export and Import between India and Indonesia in INR for HS Code 8708.

Table No. 6.13: Export and Import to Indonesia from India

8708 parts and accessories for motor vehicles	Export (INR)	Import (INR)
2008	37,38,49,834	14,64,86,885
2009	40,33,95,640	11,10,01,388
2010	30,65,81,453	19,28,53,414
2011	32,93,77,845	17,85,50,143
2012	37,41,90,506	20,62,80,912

Source : Data from Samrudhi Data Communication services ltd.

Analysis and Interpretation

From above table lot of fluctuation observed in Export and same remain almost flat in 5 years i.e. export to Indonesia was around 373 Mn INR , remain almost same as 374 Mn INR, due to in-between global recession. However imports are steadily increasing from 146 Mn INR in 2008 to 206 Mn INR in 2012 due to import of natural minerals like Coal, rubber from Indonesia.

Summary

Like in Thailand market, researcher has done detailed analysis for Indonesian market as well understand present demand for Tyres and Wheel, present supply in market. Various types and sizes used in the market, various players in market. Also studied in detail market perception for Tyres and wheel w.r.t. various parameters like price, quality, duty structure etc and compare the same with help of tabulation of graphs wherever required.

Let's focus on Vietnam as 3rd and last selected country for analysis.

6.3. Presentation and Analysis of Vietnam Market

After analysing Thailand and Indonesia next selected country is Vietnam. Vietnam is one of the growing country with growth rate of approx. 5. Vehicle production is around 140K, which is comparatively less than Thailand and Indonesia, however it is growing market. Researcher has studied this market in depth for Commercial Tyre and Commercial Wheel rim.

6.3.1. Total Spare/Retail Market Demand

With help of this question researcher tried to find out total requirement of spare market for Commercial Tyre and Commercial Wheel Rim. The demand is again divided in to type, size etc. That analysis has also done in detailed in this section. Apart from Demand in market this section also covers supply of Tyre and Wheel in the market.

A) Total Spare Market Demand

Total demand refers to total requirement of Spare market for Tyre and Wheel irrespective of size or type.

A.1.) Commercial tyre

Below are the demand formulated in tabular form as stated by respondent and average calculated. Data upto 2012 is actual demand and 2013 & 2014 are forecasted demand.

Table No. 6.14: Commercial Tyre Spare Market Demand in Vietnam (Figures in ,000)

Year	R1	R2	R3	R4	R5	R6	R7	Avg.
2010	210	NA	235	225	220	220	240	225
2011	230	NA	265	250	250	250	260	250
2012	250	NA	280	275	300	270	275	275
2013 FC	270	NA	295	305	350	290	290	300
2014 FC	285	NA	315	330	390	315	310	324

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

The data collected from respondent shows growth of @ 8-10% on year on year basis in spare market. The market is growing and expected to grow by 50% in 5 years time.

Overall average of the demand in 2012 (actual consumption) is 275,000 approx. 275K, which is expected to increase upto 325K by 2014, which shows good demand for commercial tyres in Vietnam market. Overloading is one of the common factor in Vietnam market.

A.2.) Commercial wheels

After understanding demand for Commercial Tyre, let's understand demand for commercial wheel rims also in spare market.

Table No. 6.15: Commercial wheels Spare Market Demand in Vietnam

(Figures in ,000)

Year	R1	R2	R3	R4	R5	R6	R7	Avg.
2010	30	30	40	30	35	30	40	33
2011	35	35	45	40	40	46	45	41
2012	40	45	55	50	50	54	60	50
2013 FC	45	60	70	65	65	68	75	64
2014 FC	55	75	85	85	80	85	80	78

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

The demand is picking up in Vietnam market because of overloading factor. The data collected shows growth of @ 20-25% on year on year basis in spare market.

Overall average of the demand in 2012 (actual consumption) is 50,571 approx 50 K, which is expected to increase upto 80K by 2014, which shows good demand for commercial wheels in Vietnam Market.

B) Total spare market Supply

Let's understand supply of wheel and tyres in Vietnam market. Below is the analysis for Total Supply in Spare market

B.1.) Commercial Tyres

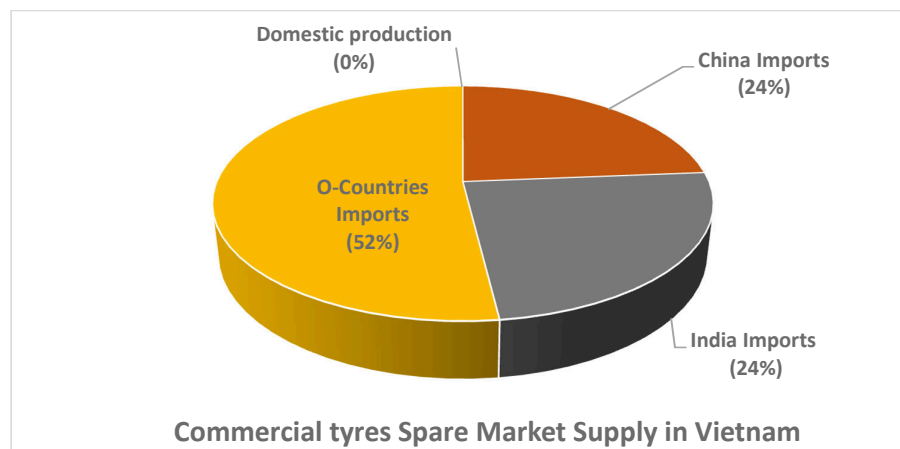
There is no local production of tyres in Vietnam, so all the demand is fulfilled by Imports. Let's understand they supply of tyres in Vietnam market.

Table No. 6.16: Commercial tyres Spare Market Demand in Vietnam (Figures in ,000)

Production	R1	R2	R3	R4	R5	R6	R7	Avg.
Domestic	0	NA	0	0	0	0	0	0
Import from China	50	NA	62	55	80	55	70	62
Import from India	50	NA	72	65	60	65	70	64
Import from other countries	150	NA	150	140	160	145	70	136

Source: Primary data survey of the dealers/manufacturers.

Graph No. 6.39: Commercial tyres Spare Market Supply in Vietnam



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As explained earlier in Vietnam market there is no tyre manufacturer, hence all demand is fulfilled by imports mainly from ASEAN countries i.e. Thailand. Imports from Thailand is approx. 50%, this is mainly due to less import duty advantage compare to other countries. Michelin and Bridgestone and Mexxis are supplying from Thailand. Around 25% of requirement is fulfilled by Chinese Tyres & penetration from Chinese tyres is increasing, mainly due to price advantage of Chinese tyres.

Indian Tyres are also present with good share of business like 25%. As like Indonesian market, Vietnam market is still dominated by Bias tyre. Indian manufacturer like MRF & JK tyres is holding good position and selling good 50-60K tyres in Vietnam market.

B.2.) Commercial wheels

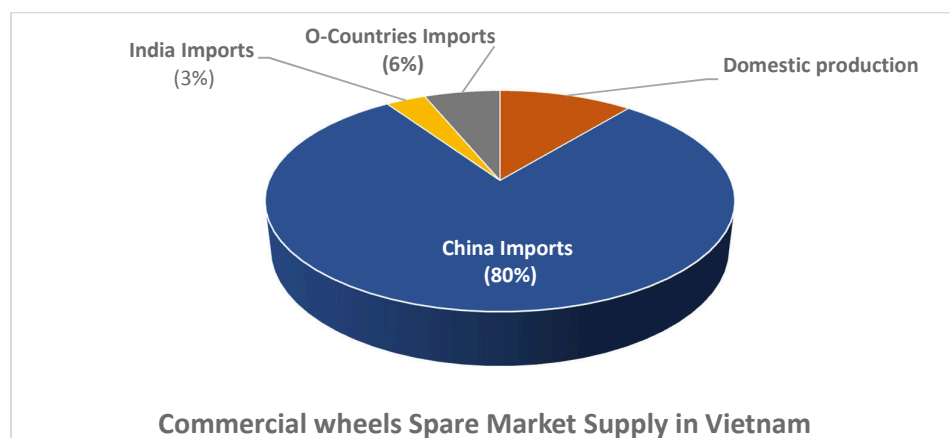
Also let's understand supply of commercial wheel rim in Indonesia market and imports in Indonesian market.

Table No. 6.17: Commercial Wheel Rim Spare Market Supply in Vietnam
(Figures in ,000)

Production	R1	R2	R3	R4	R5	R6	R7	Avg.
Domestic	6	7	4	3	10	4	4	8
Import from China	35	40	45	40	35	45	50	41
Import from India	1	2	2	1	1	1	1	2
Import from other countries	0	0	3	3	0	3	4	3

Source: Primary data survey of the dealers/manufacturers.

Graph No. 6.40: Commercial wheels Spare Market Supply in Vietnam



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

In Vietnam market there is a small wheel rim catering to small part of market with 10% market share. Around 80% market is dominated by Chinese product. Imports from China are dominating mainly due to low price and huge availability in market.

Small presence by Indian wheels of around 3%, as no focus on this market from Indian Wheel manufacturers. 4-5% wheels are getting imported from Korea mainly due to Korean vehicles are on road. There is requirement heavy duty and quality wheel with better life for overload application.

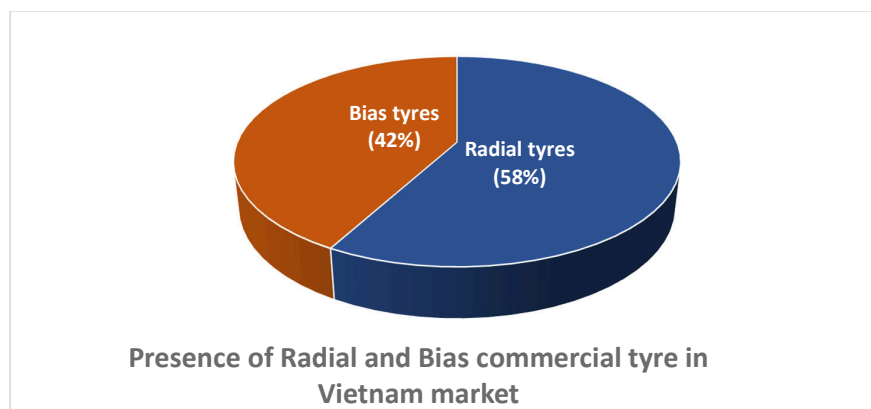
C) Total Spare/Retail Market Demand (According to types)

As explained in Thailand market 6.1.1.1.C1, Tyres are namely classified as Radial Tyre and Bias Tyres. Second classification is Tube type tyres and Tubeless tyres. Here researcher tried to find out penetration of those tyres in the market.

C.1.) Total Spare/Retail Market Demand for Radial and Bias commercial tyre

As explained above Radial Tyres are comparatively new technology than Bias tyres and gaining popularity in market.

Graph No. 6.41: Presence of Radial and Bias commercial tyre in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

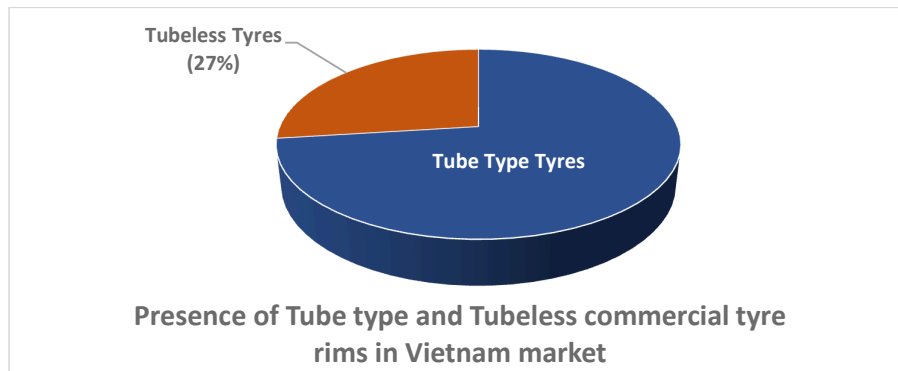
Analysis and Interpretation

As explained earlier Radial tyres are having certain advantages over Bias tyre, hence penetration of Radial tyres is increasing rapidly in Vietnam market and replacing Bias tyres. Radial tyre penetration of 58% whereas Bias tyre is still present with 42%. Bias tyres are mainly imported from India China and Thailand whereas Radial tyres are mainly imported from Thailand and China.

C.2.) Total Spare/Retail Market Demand for Tube type and Tube less tyre

Similar to Radial tyres, Tubeless tyre are new technology in market, let's understand the penetration of this type of tyres.

Graph No. 6.42: Presence of Tube type and Tubeless tyre in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

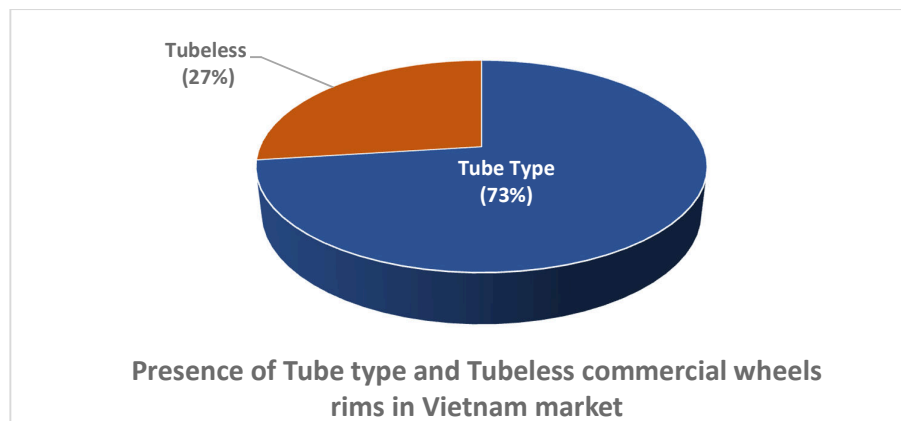
Analysis and Interpretation –

As explained above, there is always acceptance for new technological product. Same is the case for Tube less tyres. Though market is using Radial tyres still majority market is Tube type only with 73% penetration. However it is shifting towards Tubeless tyres rapidly, present penetration is @ 27%.

C.3.) Total Spare/Retail Market Demand for Tube type and Tube less commercial wheel rims.

Like Tyre in commercial wheel rims also there is introduction of Tubeless wheels, which will be suitable for tyres. Let's understand penetration of Tubeless wheels against Tube type wheels.

Graph No. 6.43: Presence of Tube type and Tubeless commercial wheel rims in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As the demand for Tubeless tyre is increasing naturally it requires Tubeless wheel rim, hence penetration of Tubeless wheel rim is also increasing in Indonesian in market. Above data shows that for around 27% penetration of Tubeless wheel rims and traditional tube type wheels are present with 73%.

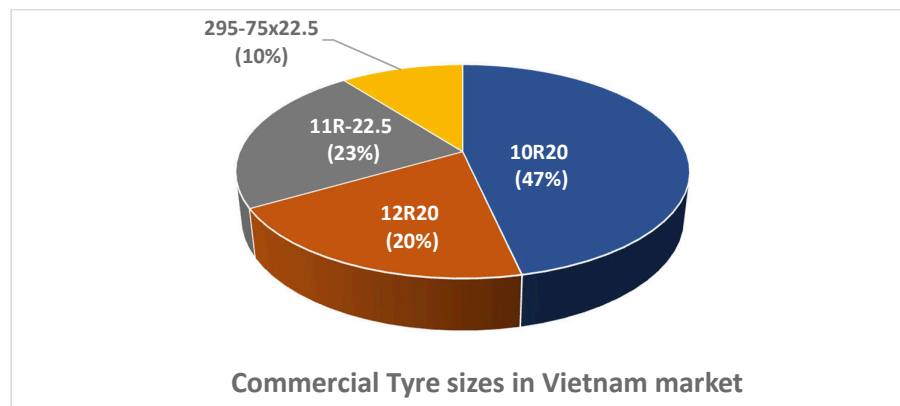
D) Total Spare/Retail Market Demand (According to size)

After major type of wheel rims, researcher also studied the sizes used in this market. As per the vehicle model or load carrying capacity differe tyre and wheels are used on vehicles.

D.1.) Commercial tyres

Tyre size is mainly recommended by OEM as per the vehicle model and load carrying capacity of the vehicle.

Graph No. 6.44: Commercial tyre sizes in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

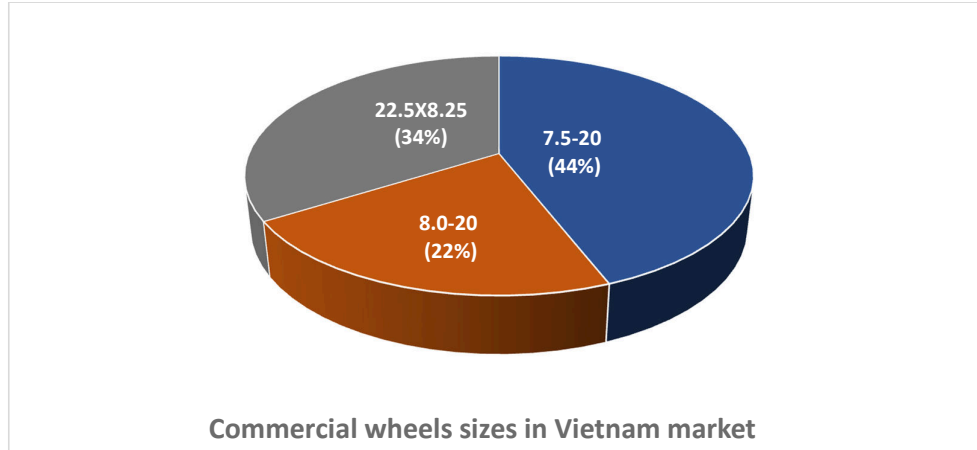
Analysis and Interpretation –

Considering Vietnam market the major size used is 10R-20, which is tube type tyre around 45-50%. Second important size is 12R 20, again Tube type Tyre requires for heavy duty application which is @ 20%. Tubeless Tyre 295-80/R 22.5 is also 20%. This information is useful for the tyre manufacturers to understand the sizes used in market and check their capability.

D.2.) Commercial wheels

Commercial wheel sizes already explained in 6.1.1.1.D2. Below is various sizes of wheels used in Indonesian market.

Graph No. 6.45: Commercial wheel sizes in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

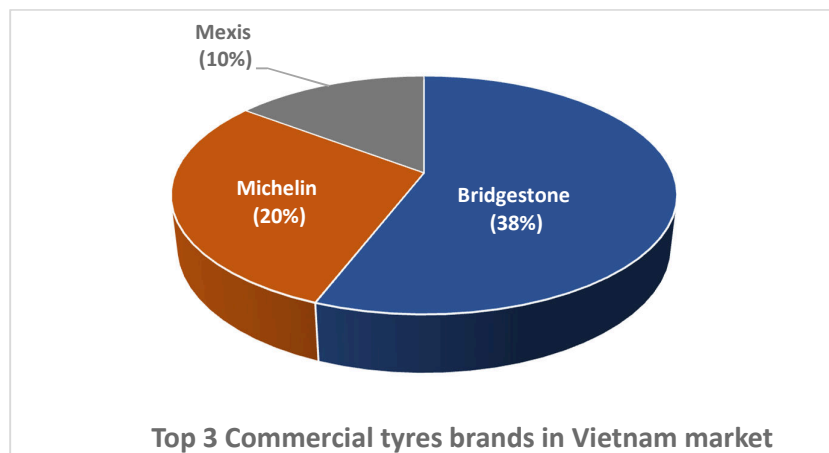
Around 45% penetration is of 7.0/7.5-20 size wheel rim which is tube type wheel rim and 35% penetration is of 22.5X8.25 size which is wheel rim which is tubeless wheel rim. However good penetration of 8.0-20” Tube type wheel rims required for vehicle with overloading.

E) Total Spare/Retail Market Demand (According to brand)

Major Tyre brand in Indonesia market.

E.1.) Commercial tyres

Graph No. 6.46: Top 3 Commercial tyre brands in Vietnam market



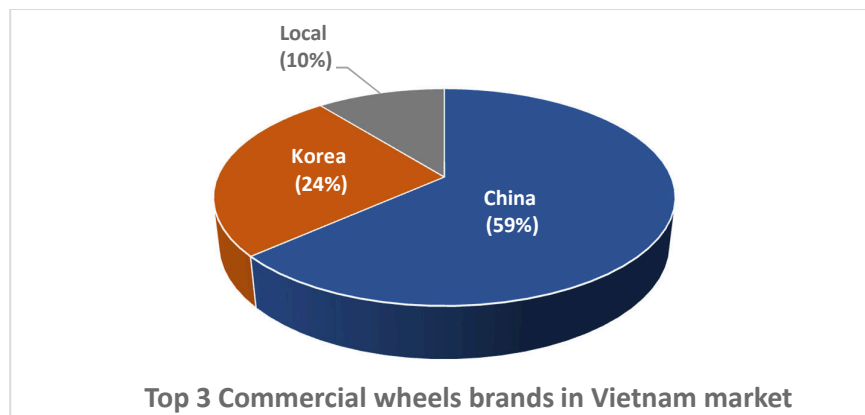
Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As seen earlier 50% of Vietnam market is catered by tyres imported from Thailand by Bridgestone and Michelin. Bridgestone is having SOB of 35% & Michelin is present with 15% SOB. Next preferred brand is also from Thailand Mexxis @ 10% SOB. However Indian brands like MRF & JK are also well known for Bias tyres.

E.2.) Commercial wheels

Graph No. 6.47: Top 3 Commercial wheel brands in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

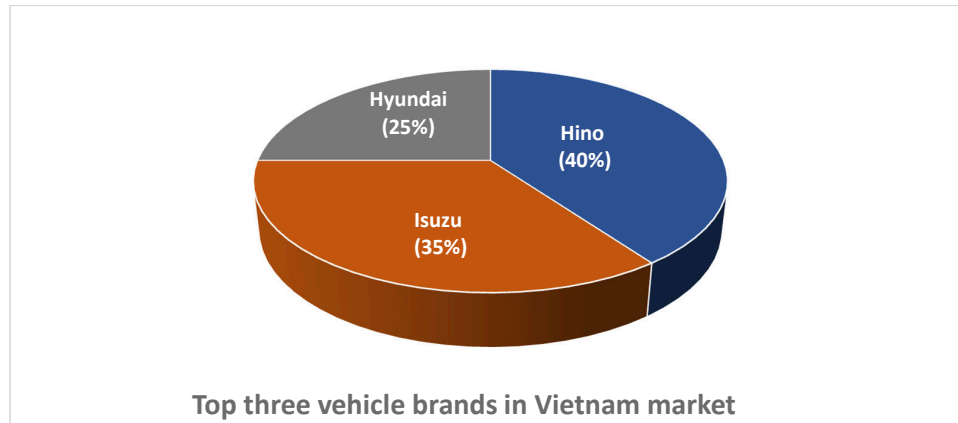
Analysis and Interpretation –

Though there is small wheel manufacturer in Vietnam called CONG TY TNHH TM-DV-SX- Hy THINH , still majority wheels used are Chinese due to low price and availability in wide range. Local manufacturer having their presence is limited to 13%. Other wheels imported are Korean wheels due to Hyundai Trucks. Indian wheels have recently entered & having 3-4 % SOB, trying to penetrate in market

6.3.2. Top 3 Vehicle manufacturers in Vietnam Market.

As all the research is related to commercial vehicle, researcher has also collected data regarding top 3 brands or vehicle sold in the Vietnam market.

Graph No. 6.48: Top 3 vehicle brands in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

Vietnam market is also dominated by Japanese and Korean vehicle manufacturers. As per above graph and data collected Hino leading the market with 40% of market share followed by Isuzu 35% and then Hyundai 25%.

6.3.3. Ranking of different characteristics on a scale on 1-10

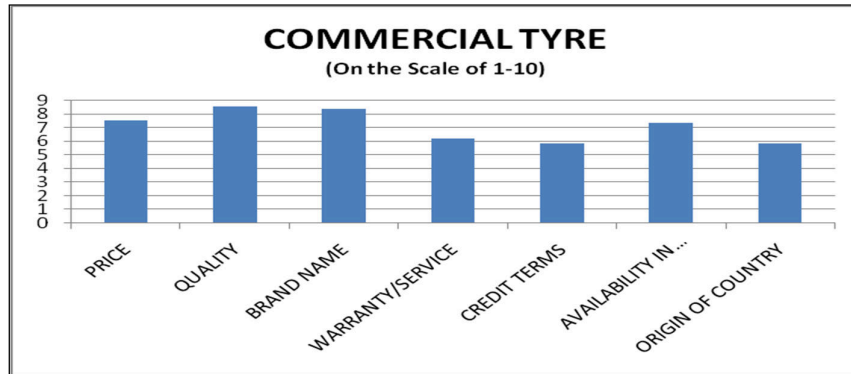
Consumer Priorities while purchasing Commercial Tyre and Wheel in Vietnam market

As already briefed in 6.1.3 section researcher tried to find out market perception regarding Tyre and wheel rims based on 7 different parameters. Below is detailed analysis of ranking done by respondent.

A) Ranking of Consumer priorities while purchasing Commercial Tyre.

As mention above average ranking of respondent with respective 7 different parameters are plotted in histogram as below:-

Graph No. 6.49: Ranking of Consumer priorities while purchasing Commercial Tyre in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

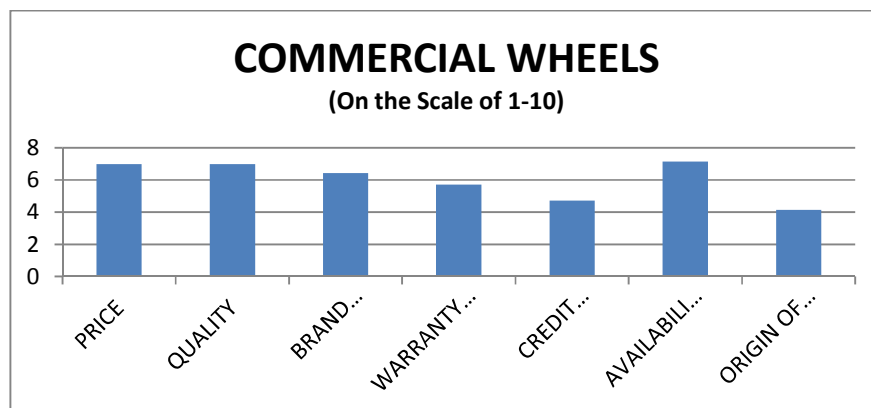
Analysis and Interpretation –

As per data collected in Vietnam market, the first priority of consumers while purchasing Commercial tyre is Quality and Brand name. As tyre is costlier part, consumers are more careful about quality and brand name of the tyre while making their buying decision. Second important parameter is availability in market and price of tyre. Warranty normally associates with Brand name/manufacturer name in case of big manufacturers like Michelin & Bridgestone. Country of origin and credit terms are having low weight age.

B) Ranking of Consumer priorities while purchasing Commercial Wheel Rims.

Like tyre, researcher has also studied consumer priorities while purchasing Wheel rims & plotted same as below:

Graph No. 6.50: Ranking of Consumer priorities while purchasing Commercial wheels in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per data collected in Vietnam market, the first priority of consumers while purchasing Commercial wheels rim is availability in market followed by price of the product. Next important factor is Quality of product, however limited options available with good quality product, hence consumers are preferring product whichever easily available at low price. Next preferences are Brand name, Warranty/Service provided by wheel supplier and also origin of country.

6.3.4. Market Perception regarding manufacturing country in Vietnam Market

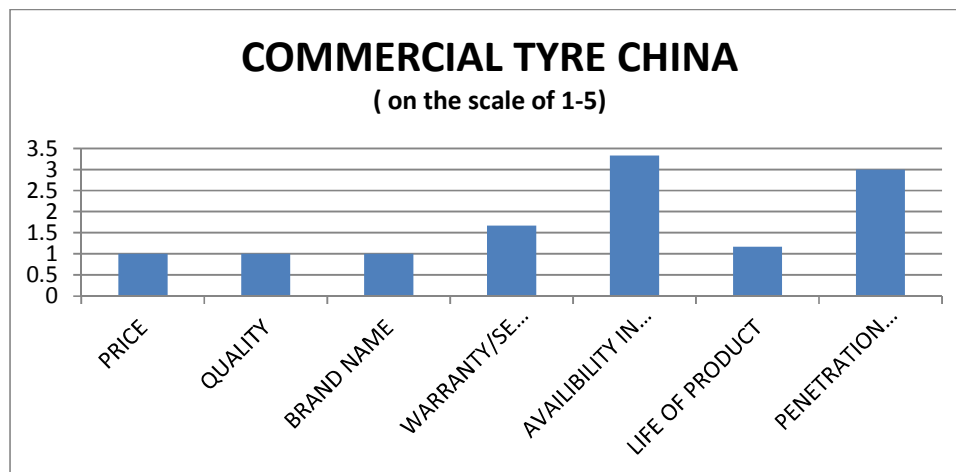
After understanding consumer priorities while purchasing any product, next exercise done by researcher is to understand market perception of manufacturing country. The methodology is explained in topic no 6.1.4 in Thailand market section.

A) Market perception for Commercial tyre.

Let's understand the market perception for various countries w.r.t. important parameters while purchasing commercial tyre.

A.1.) Market Perception of China Tyre

Graph No. 6.51: Market Perception of China Tyre in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

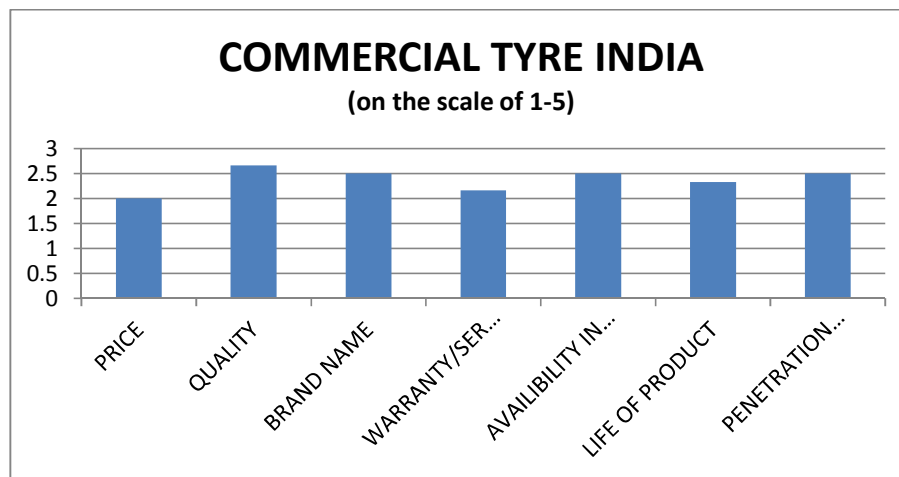
As per the data collected Market Perception for Tyre from China is as below. Same is compare with other in Hypothesis Testing of this chapter.

- Price: Selling at very low price as a common strategy for all ASEAN countries.

- Quality: Perception regarding Quality is not good, treated as low Quality product.
- Brand Name: No major Brand name as selling with various brand name in market.
- Warranty/Service: No Warranty or service provided by Chinese Tyre suppliers.
- Availability in Market: Very good on availability in market & it is a strong point of Chinese wheel suppliers to penetrate in market.
- Life of Product: Treated as low life product due to quality, as overloading in Vietnam.
- Penetration Potential: Good potential as price is important parameter and Chinese products are available at low price. Also introduced Radial tyres which has advantage for Chinese tyres.

A.2.) Market Perception for India

Graph No. 6.52: Market Perception of India Tyre in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Tyre from India is as below. Same is compare with other in Hypothesis Testing of this chapter.

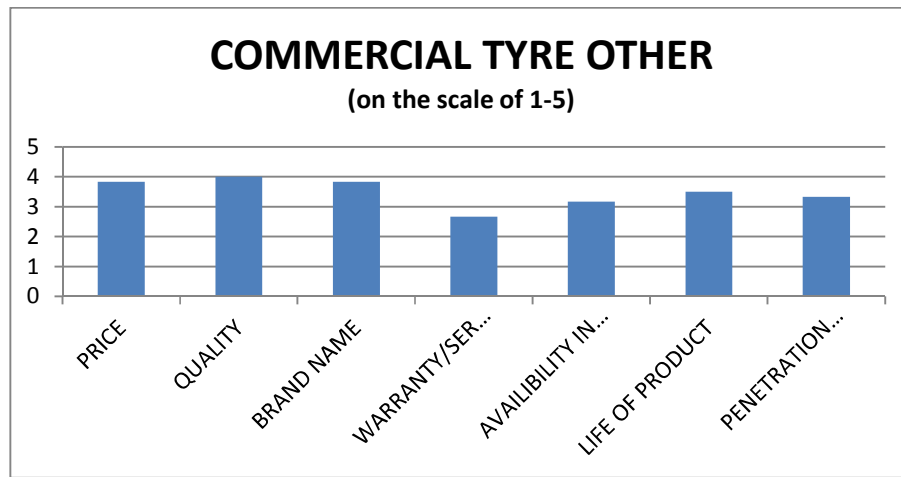
- Price: Medium pricing strategy. Very well accepted in market for Bias tyres.
- Quality: Perception regarding Quality is good for Bias tyres, treated as respectable Quality product.
- Brand Name: Brand name is also good, MRF & JK tyres are well known brand in Vietnam market.
- Warranty/Service: Fairly good on providing warranty and service through dealers.

- Availability in Market: good dealer network to sell Indian product, hence availability is good in the market.
- Life of Product: Comparatively good life of product, hence good image in market.
- Penetration Potential: Presently good penetration & also good chances to retain market share. However market is also shifting toward radial tyres, where Indian Tyres are still struggling, need to focus on same.

A.3.) Market Perception for other countries

There are certain tyre manufacturers like Michelin & Bridgestone, which are producing in Thailand and importing in Vietnam. Market perception about these products is different and important to understand same.

Graph No. 6.53: Market Perception for other countries in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for foreign brands but imported from ASEAN countries is as below.

- Price: High Price strategy, due to Quality, life, Branding of product.
- Quality: Very strong image regarding Quality of product.
- Brand Name: Strongly present in Vietnam market & captured majority of market share.
- Warranty/Service: Weak in warranty and service
- Availability in Market: Wide selling network, so present in all parts of country with good availability and variety.

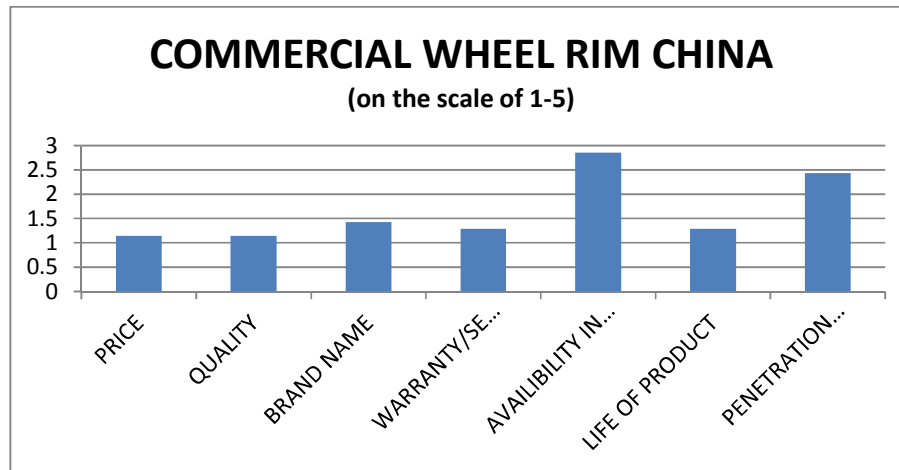
- Life of Product: Comparatively good life of product, as considering application of tyres, it is expected to get reduced life.
- Penetration Potential: Already good in penetration and having good potential for future as well.

B) Market Perception for Commercial wheels

After understanding Market Perception for Tyres from various countries. Let's understand market perception for Wheels from various countries as well.

B.1.) Market Perception for Commercial Wheels from China

Graph No. 6.54: Market Perception for commercials wheels from China in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Wheels from China is as below. Same is compare with other in Hypothesis Testing of this chapter.

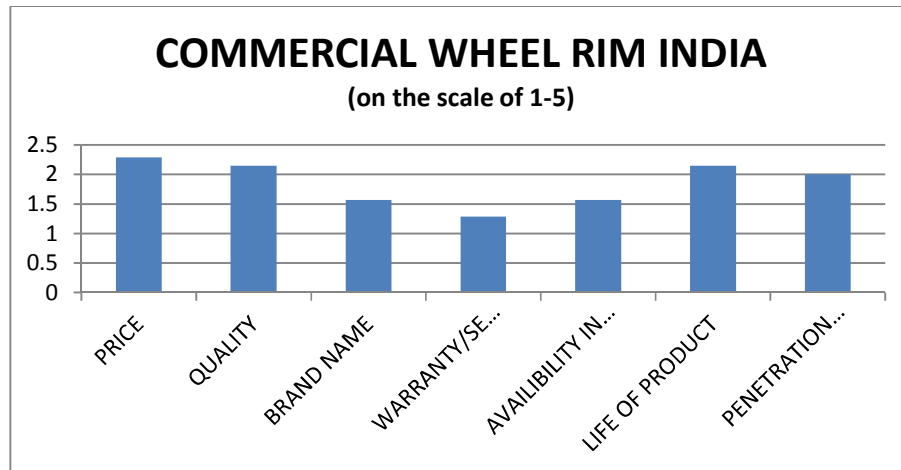
- Price: Selling at very low price as a strategy & penetrate in market.
- Quality: Perception regarding Quality is not good, treated as low Quality product.
- Brand Name: No major Brand name as selling with various brand name in market.
- Warranty/Service: No Warranty or service provided by Chinese Tyre suppliers.
- Availability in Market: Very good on availability in market & it is a strong point of Chinese wheel suppliers to penetrate in market.
- Life of Product: Treated as low life product due to quality due to overloading of vehicles.

- Penetration Potential: Good potential as price is important parameter and Chinese products are available at low price. Strong in Tube type wheels, also focusing on Tubeless wheels.

B.2.) Market Perception for Commercial Wheels from India

Small imports @ 3-4% of Wheels from India. Below is the analysis of market perception for India wheels.

Graph No. 6.55: Market Perception for commercials wheels from India in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation –

As per the data collected Market Perception for Wheels from India is as below. Same is compare with other in Hypothesis Testing of this chapter.

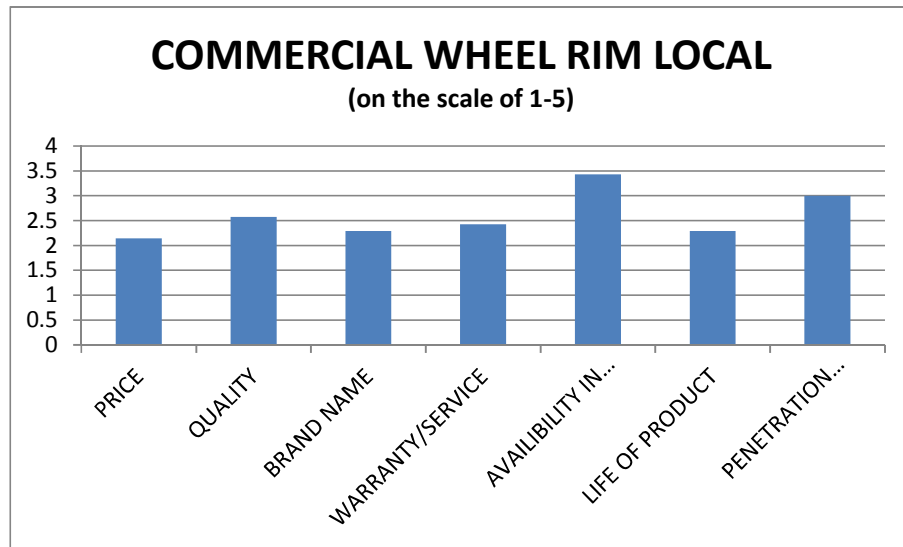
- Price: Comparatively high on price. No as cheap as China. Introduced Tubeless wheels in market.
- Quality: Perception regarding Quality is good, treated as respectable Quality product for tubeless tyre application.
- Brand Name: Medium on brand name. No much presence in Vietnam market.
- Warranty/Service: Low Warranty or service provided by Indian suppliers.
- Availability in Market: Comparatively low on availability in market, need to increase spread in market.
- Life of Product: Considered good on life of product, however need to prove in market.

- Penetration Potential: As Tubeless wheel penetration is increasing in market & Tyre manufacturers' needs good quality product to promote along with their tyre, moderate penetration potential.

B.3.) Market Perception for Commercial Wheels from local manufacturer

Small manufacturer in Vietnam as briefed earlier having SOM 15%.

Graph No. 6.56: Market Perception for commercials wheels from local manufacturers in Vietnam market



Source: Primary data survey of the dealers/manufacturers.

As per the data collected Market Perception for Wheels from local manufacturer is as follows:-

- Price: Price is low as producing locally, sometime assembling wheels disc & rim imported from China.
- Quality: Perception regarding Quality is medium.
- Brand Name: Medium also on brand name as not present in OEM.
- Warranty/Service: Medium on Warranty and service. Provided repair/replacement service wherever required.
- Availability in Market: Adequate availability in market.
- Life of Product: Medium life compare to other imports.
- Penetration Potential: As market is growing, good penetration potential however capacity and capability will be a hurdle.

6.3.5. Import Duty Structure for Commercial Tyre and Wheels

It is also important to understand import duty structure for Tyres and wheels imported to Indonesia from various countries. Duty plays an important role to decide price. If duty difference is high between 2 countries, certainly one country gets advantage over other country.

Table No. 6.18: Import Duty Structure for Commercial Tyre and Wheels in Vietnam market

Country of origin	Import duty for Tyre	Import duty for Wheels
China	25%	25%
India	25%	25%
Other country Thailand	5%	5%

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation

Above table shows for all tyre and wheels import duty for China and India even for other countries is 25%, except ASEAN country import. ASEAN countries is having 5% import duty so having big advantage over other country import. No major advantage of FTA between India and ASEAN countries. Need to approach government appropriately to prioritise reduction in duty.

6.3.6. Export and Import between Vietnam from India

As explained in topic no 6.1.6. along with Thailand researcher has also studied Export-Import between India and Vietnam, the criteria and methodology is same as used for Thailand and explain in 6.2.1. for HS code 8708(parts and accessories for motor vehicle) as below.

Table No. 6.19: Export and Import between Vietnam and India

Parts and accessories for motor vehicles	Export (INR)	Import (INR)
2008	1,44,39,121	11,67,570
2009	2,18,83,330	69,44,157
2010	2,25,89,785	65,71,278
2011	2,39,91,849	85,27,517
2012	2,64,29,937	96,24,504

Source : Data from Samrudhi Data Communication services ltd.

Analysis and Interpretation

From above table it is observed that trade is increasing steadily. Export is more than import. In 2008 export was 14 Mn INR which has increased to 26 Mn INR by 2012. Imports are steadily increasing from 1 Mn INR in 2008 to 9.6 Mn INR in 2012.

Summary

Researcher has done detailed analysis of Vietnam market to understand spare market demand in similar way of Thailand and Indonesia. Vietnam do not have Tyre manufacturer & all tyre requirement are fulfilled by Imports from Thailand, India and China. There is duty advantage for imports from ASEAN countries. For wheels also there is small wheel manufacturer in Vietnam and most of the demands are fulfilled by imports mainly from China.

In above section Researcher done the detailed analysis of all the three countries i.e. Thailand, Indonesia and Vietnam.

Thailand and Indonesia are having domestic manufacturers of Tyre and dominating market. Vietnam do not have Tyre manufacturer, hence all Tyre requirements are imported. Regarding Wheel rims Thailand do not have wheel manufacturer, Vietnam is having small wheel manufacturer and however Indonesia is having 2 wheel manufacturers. In spite of all this penetration from China product is increasing due to low price and availability in market. Market perception for Chinese product w.r.t. Quality, brand is at lower level, whereas market perception for Indian product is medium or high w.r.t. Quality of product. However Indian product are weak in availability in certain market causes limited penetration.

These finding will be summarised in next chapter and suitable suggestion made to various agencies. In below section i.e. Part B, researcher has tested the hypothesis considered with help of data analysed in part I.

PART –II- Hypothesis Testing

One of the important stage in research is to test Hypothesis assumed in the beginning of research. After systematic analysis of the data, hypothesis testing is done with help of various statistical tools. In this chapter researcher has done hypothesis testing with help of Simpler Regression Analysis (fitted line plot), Pearson Correlation factor, two sample T test and simple statistical tool like Mean (Avg). As the research is based in 3 countries and two selected component, each hypothesis is tested for each component for respective country. For better understanding for each test in the beginning the graphs are plotted as a result of statistical test for 1 example only. Later on only table plotted with with respective P Value, Pearson factor, R Sq factor and then inferences drawn from these values.

6.4 Testing Hypothesis H1

“Thailand, Indonesia and Vietnam are importing lot of Auto Components from various countries”

Researcher has collected data of domestic production v/s Import from various countries to selected country w.r.t. Commercial Tyre and Wheel. Some of the countries are having domestic production which is dominating the market whereas some of the countries do not have domestic production for certain product. On the above data Simple Linear Regression Analysis was done with help of fitted line plot and Pearson Correlation factor calculated to understand Import pattern.

The main hypothesis is divided in sub hypothesis for Country and then for product as below:-

H1_{T1} – Thailand is importing lot of Commercial Tyres from Various Countries.

H1_{T2} – Thailand is importing lot of Commercial Wheel rims from Various Countries.

H1_{I1} – Indonesia is importing lot of Commercial Tyres from Various Countries.

H1_{I2} – Indonesia is importing lot of Commercial Wheel rims from Various Countries.

H1_{V1} – Vietnam is importing lot of Commercial Tyres from Various Countries.

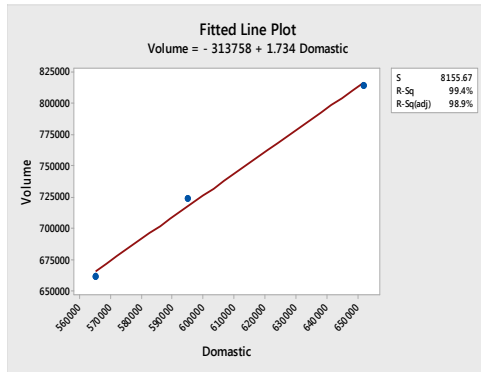
H1_{V2} – Vietnam is importing lot of Commercial Wheel rims from Various Countries.

A) Thailand Market

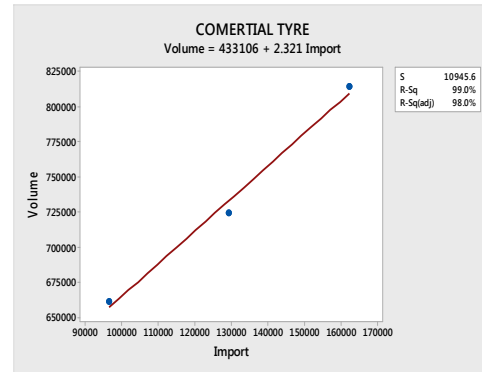
First country selected is Thailand country. Resercher has counduted Hypothesis testing for Commercial Tyre and Wheel Rim as below.

A.1.) Commercial Tyre

As explained above below is the one example shown with graphs for fitted plot diagrams. Researcher has calculated P value, R Seq value and Pearson Co-relation factor to undestand relation between demand and supply.



Graph No. 6.57: Volume V/S Domestic Production



Graph No. 6.58 Volume V/S Imports

Table No. 6.20. Pearson Correlation statistics for Hypothesis $H1_{T1}$

Commercial Tyre		Pearson Correlation Factor	P-Value	R-Seq
a)	Volume V/S Domestic Production	0.997	0.048	98
b)	Volume V/S Imports	0.995	0.064	98

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

There is positive and significant correlation ($P\text{-Value} < 0.05$) between demand and domestic production. SO Domestic production is increasing as demand is increasing in Thailand market for Tyres. There is positive but non-significant ($P\text{-Value} > 0.05$) correlation between demand and Import of Tyres. This means imports are also increasing with volume increase but not significant. However as import is increasing with demand, hypothesis $H1_{T1}$ is **partially accepted**.

A.2.) Commercial Wheel Rim

Table No. 6.21. Pearson Correlation statistics for Hypothesis H1_{T2}

Commercial Wheel Rim		Pearson Correlation Factor	P-Value	R-Seq
a)	Volume V/S Imports	1	*	100

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

It has been observed that there is no wheel rim producer in Thailand market, so there is no data for Domestic production. All demand is fulfilled by Imports from various countries like China, India, and Indonesia etc. Pearson Correlation factor is 1 & R Seq is 100. So this **hypothesis H1_{T2}** is **accepted** for Wheel Rim.

B) Indonesian Market

Let's conduct the testing for Tyre and wheel rim in Indonesia market as well.

B.1.) Commercial Tyre

Same statistical test like Thailand are used for testing tyre supply in Indonesia market. Below is the summary of the data with P value.

Table No. 6.22. Pearson Correlation statistics for Hypothesis H1_{I1}

Commercial Tyre		Pearson Correlation Factor	P-Value	R-Seq
a)	Volume V/S Domestic Production	0.987	0.104	95
b)	Volume V/S Imports	0.986	0.107	94

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: - Like Thailand, Indonesia is also having domestic production for tyres which is dominating and 70% share of business as seen in analysis. However Imports are also considerable @ 30%. Imports of Tyres increases with increase in volume positive Pearson Correlation factor. However it is non-significant (P-Value > 0.05). **Hypothesis H1_{I1}** is **partially accepted**.

B.2.) Commercial Wheel Rim

There are 2 wheel rim manufacturers in Indonesia market. SO testing is done on Domestic production as well as Imports.

Table No. 6.23. Pearson Correlation statistics for Hypothesis H1₁₂

Commercial Wheel Rim		Pearson Correlation Factor	P-Value	R-Seq
a)	Volume V/S Domestic Production	0.977	0.136	91
b)	Volume V/S Imports	1.000	0.008	100

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

Positive correlation between demand and domestic production, also between Demand and imports. Significant increase in Imports as volume increases (P-Value < 0.05), hence **Hypothesis H1₁₂ is accepted.**

C) Vietnam Market

Vietnam is next selected country, testing of hypothesis is done on Vietnam as well.

C.1.) Commercial Tyres

There is no Tyre manufacturer present in Vietnam, so all demands are fulfilled by imports from various countries.

Table No. 6.24. Pearson Correlation statistics for Hypothesis H1_{V1}

Commercial Wheel Rim	Pearson Correlation Factor	P-Value	R-Seq
a) Volume V/S Imports	1	*	100

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation:-

As mentioned above no Tyre producer in Vietnam market, so there is no data for Domestic production. All demand is fulfilled by Imports from various countries like China, India, and Thailand etc. Pearson Correlation factor is 1 & R Seq is 100. So this **hypothesis H1_{V1} is accepted** for Wheel Rim.

C.2.) Commercial Wheel rim

Small Wheel manufacturer in Vietnam, lets test hypothesis for Wheel rim.

Table No. 6.25. Pearson Correlation statistics for Hypothesis H1_{v2}

Commercial Wheel Rim		Pearson Correlation Factor	P-Value	R-Seq
a)	Volume V/S Domestic Production	0.999	0.025	99.7
b)	Volume V/S Imports	1.000	0.006	100

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation:-

Positive Relationship indicates increase in domestic production as well as import as volume is increasing. For import P value is less than 0.05, so imports is significant, hence **hypothesis H1_{v2} is accepted.**

6.5 Testing Hypothesis H2

“Import from other countries at lower price and vast availability in market restricts penetration for Indian Automobile Component”

Researcher has collected comparative data of products imported in selected countries from China and India. The data mainly is comparison of Price, Market availability and Penetration potential for India as well as for China products. On the above data Two sample T – test applied to understand comparison and P value is calculated. Based on P value inferences are drawn for Tyre and Wheels in selected countries.

The main hypothesis is divided in sub hypothesis for Country and then for product as below:-

H2_{T1} – Import of Commercial Tyres from other countries to Thailand at lower price and vast availability in market restricts penetration for Indian Commercial Tyres.

H2_{T2} – Import of Commercial Wheel rims from other countries to Thailand at lower price and vast availability in market restricts penetration for Indian Commercial Wheel.

H2_{I1} – Import of Commercial Tyres from other countries at lower price to Indonesia and vast availability in market restricts penetration for Indian Commercial Tyres.

H2₁₂ – Import of Commercial Wheel rims from other countries to Indonesia at lower price and vast availability in market restricts penetration for Indian Commercial Wheel.

H3_{V1} – Import of Commercial Tyres from other countries at lower price to Vietnam and vast availability in market restricts penetration for Indian Commercial Tyres.

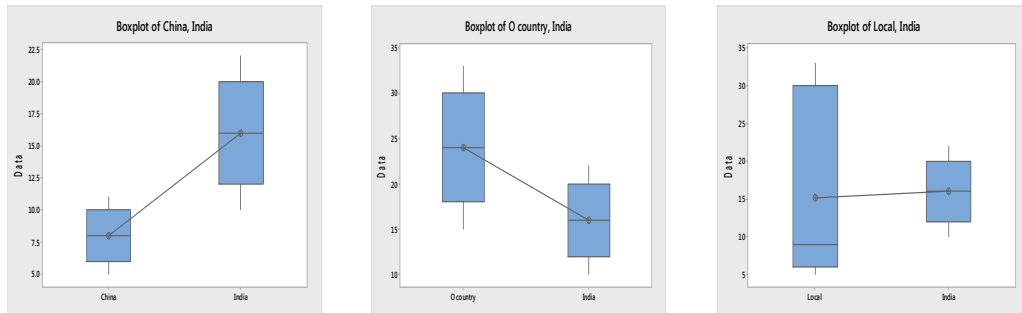
H3_{V2} – Import of Commercial Wheel rims from other countries to Vietnam at lower price and vast availability in market restricts penetration for Indian Commercial Wheel.

A) Thailand Market

Below is the test conducted for Tyre and Wheels in Thailand Market

A.1.) Commercial Tyre

As explained above below is the one example shown with graphs for Box plot diagrams. Researcher has calculated P value to understand comparison between two parameters.



Graph No. 6.59:China vs India **Graph No.6.60:**other country vs India **Graph No.6.61:**Local vs India

Table No. 6.26. Paired T test statistics for Hypothesis H2_{T1}

Two-sample T test for Price (95% Confidence level)			
	Price Comparison	P-Value	Remark
a)	China vs India	0.002	Significant
b)	Other country vs India	0.022	Significant
c)	Local vs India	0.862	Non-significant
Market Availability			
a)	China vs India	0.005	Significant
Penetration Potential			
a)	China vs India	0.027	Significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

P value shows there is no-significant difference between Indian product price and Local product price. However P Value shows significantly lower price of Chinese as well other country product v/s Indian Product.

Regarding market availability also P value shows Significant difference between India and China, inference of that is availability of Chinese product are significantly vast than Indian product. Regarding penetration potential also Chinese Tyres are having significantly better penetration potential than Indian Tyres in Thailand market. Hence hypothesis **H2T1 is accepted.**

A.2.) Commercial Wheels

Table No. 6.27. Paired T test statistics for Hypothesis H2T2

Two-sample T test for Price (95% Confidence level)			
	Price Comparison	P-Value	Remark
a)	China vs India	0.002	Significant
b)	Other country vs India	0.31	Non-significant
Market Availability			
a)	China vs India	0.005	Significant
Penetration Potential			
a)	China vs India	0.03	Significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation:-

P Value shows significantly lower price of Chinese Product v/s Indian Product, whereas no much significant difference between price between Indian Wheels and other country (Japan) wheels. On Market availability and Penetration potential there is significant difference between India and China (P-Value<0.05). Inference is Chinese wheels are at lower price, vast market availability and better market penetration potential than Indian wheels **hence H2T2 is accepted.**

B) Indonesia Market

Presentation of statistical data and testing of same for Indonesia market.

B.1.) Commercial Tyre

Table No. 6.28. Paired T test statistics for Hypothesis H₂₁

Two-sample T test for Price(95% Confidence level)			
	Price Comparison	P-Value	Remark
a)	China vs India	0.019	Significant
b)	Local vs India	0.065	Non-significant
Market Availability			
a)	China vs India	0.34	Non-significant
Penetration Potential			
a)	China vs India	0.33	Non-significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

P value shows there is no-significant difference between Indian product price and Local product price. However P Value shows significantly lower price of Chinese v/s Indian Product. Regarding market availability also P value shows Non-Significant difference between India and China, inference of that good availability of Chinese as well as Indian Tyres in Indonesian market. Regarding penetration potential also Indian Tyres are having good penetration potential as Indonesian Market requires Quality product. Hence hypothesis H₂₁ is rejected.

B.2.) Commercial Wheels

Table No. 6.29. Paired T test statistics for Hypothesis H₂₂

Two-sample T test for Price (95% Confidence level)			
	Price Comparison	P-Value	Remark
a)	China vs India	0.022	Significant
b)	Other country vs India	0.053	Non-significant
Market Availability			
a)	China vs India	0.03	Significant
Penetration Potential			
a)	China vs India	0.3	Non-significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

P value shows there is no-significant difference between Indian product price and other country product price. However P Value shows significantly lower price of Chinese v/s Indian Product. Regarding market availability also P value shows significant difference between India and China, inference of that is better availability of Chinese Wheels compare to Indian wheels. Regarding penetration P value shows non-significant difference means Indian Wheels are having good penetration potential as Indonesian Market requires Quality product. Hence hypothesis **H2_{II} is rejected.**

C) Vietnam Market

Presentation of statistical data and testing of same for Indonesia market.

C.1.) Commercial Tyre.

Table No. 6.30. Paired T test statistics for Hypothesis H2_{V1}

Two-sample T test for Price(95% Confidence level)			
	Price Comparison	P-Value	Remark
a)	China vs India	0.004	Significant
b)	Other Countries vs India	0.31	Non-significant
	Market Availability		
a)	China vs India	0.16	Non-significant
	Penetration Potential		
a)	China vs India	0.46	Non-significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: - P value shows there is Non-significant difference between Indian product price and Other countries product price. . However P Value shows significantly lower price of Chinese v/s Indian Product. Regarding market availability as well as Penetration potential P value shows Non-Significant difference between India and China, inference of that good availability of Chinese as well as Indian Tyres in Vietnam market. Regarding penetration potential also Indian Tyres are having good penetration potential as Vietnam Market still requires Bias tyres. Hence hypothesis **H2_{V1} is rejected.**

C.2.) Commercial Wheel Rims

Table No. 6.31. Paired T test statistics for Hypothesis H2_{v2}

Two-sample T test for Price(95% Confidence level)			
	Price Comparison	P-Value	Remark
a)	China vs India	0.002	Significant
b)	Other Countries vs India	0.30	Non-significant
Market Availability			
a)	China vs India	0.009	Significant
Penetration Potential			
a)	China vs India	0.02	Significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation : - P Value shows significantly lower price of Chinese Product v/s Indian Product, whereas no much significant difference between price between Indian Wheels and other country (Japan) wheels. On Market availability and Penetration potential there is significant difference between India and China (P-Value<0.05). Inference is Chinese wheels are at lower price, vast market availability and better market penetration potential than Indian wheels **hence H2_{T2} is accepted.**

6.6 Testing Hypothesis H3

“Market Perception for Indian Automobile components is better than Chinese components in terms of Quality, Service and Brand recognition”

To understand perception for Indian Automobile Components researcher has collected comparative data of products imported in selected countries from China and India. The data mainly is comparison of Quality, Service, Brand and life of product for India as well as for China products. On the above data Two sample T – test applied to understand comparison and P value is calculated. Based of P value inferences are drawn for Tyre and Wheels in selected countries.

The main hypothesis is divided in sub hypothesis for Country and then for product as below:-

H3_{T1} – Market Perception for Commercial Tyres from India is better than Chinese Tyres in terms of Quality, Service and Brand recognition in Thailand market.

H3_{T2} – Market Perception for commercial wheel rims from India is better than Chinese wheel rims in terms of Quality, Service and Brand recognition in Thailand Market.

H3_{I1} – Market Perception for Commercial Tyres from India is better than Chinese Tyres in terms of Quality, Service and Brand recognition in Indonesia Market.

H3_{I2} – Market Perception for commercial wheel rims from India is better than Chinese wheel rims in terms of Quality, Service and Brand recognition in Indonesia Market.

H3_{V1} – Market Perception for Commercial Tyres from India is better than Chinese Tyres in terms of Quality, Service and Brand recognition in Vietnam market.

H3_{V2} – Market Perception for commercial wheel rims from India is better than Chinese wheel rims in terms of Quality, Service and Brand recognition in Vietnam Market.

A) Thailand Market

Below are the tests conducted for Tyre and Wheels in Thailand Market.

A.1.) Commercial Tyre

To test above Hypothesis **T Sample test** conducted between China and India on various parameters like Quality, and Brand. Warranty Service and Product Life.

Table No. 6.32. Paired T test statistics for Hypothesis H3_{T1}

Two-sample T test for Various Characteristics(95% Confidence level)			
Commercial Tyre		P-Value	Remark
a)	Quality Comparison	0.004	Significant
b)	Brand Comparison	0.240	Non-significant
c)	Warranty Service Comparison	0.961	Non-significant
d)	Life of Product Comparison	0.002	Significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

P Value shows Chinese Component are significantly negative on Quality and Life of Product. Whereas difference is non-significant on Brand Name and Warranty. It inference that Market perception for Quality and Life of product for Indian product is good, however need to focus on Brand and Warrant service. Hypothesis **H3_{T1}** is **partially accepted** for **Quality**.

A.2.) Commercial Wheel

Similar test conducted for wheel rim as well in Thailand Market.

Table No. 6.33. Paired T test statistics for Hypothesis H3_{T2}

Two-sample T test for Various Characteristics(95% Confidence level)			
Commercial Wheel		P-Value	Remark
a)	Quality Comparison	0.002	Significant
b)	Brand Comparison	0.024	Significant
c)	Warranty Service Comparison	0.961	Non-significant
d)	Life of Product Comparison	0.002	Significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

P Value shows Chinese Component are significantly negative on Quality, Brand and Life of Product. Whereas difference is non-significant on Warranty. It inference that Market perception for Quality, Brand and Life of product for Indian wheel rim is good in Thailand Market, however need to focus on Warranty service. Hypothesis **H3_{T2}** is **partially accepted** for **Quality & Brand recognition**.

B) Indonesia Market

Presentation of statistical data and testing of same for Indonesia market.

B.1.) Commercial Tyre

Table No. 6.34. Paired T test statistics for Hypothesis H3_{I1}

Two-sample T test for Various Characteristics(95% Confidence level)			
Commercial Tyre		P-Value	Remark
a)	Quality Comparison	0.007	Significant
b)	Brand Comparison	0.019	Significant
c)	Warranty Service Comparison	1.000	Non-significant
d)	Life of Product Comparison	0.034	Significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

P Value shows Chinese Component are significantly negative on Quality, Brand and Life of Product. Whereas difference is non-significant on Warranty. It inference that Market perception for Quality, Brand and Life of product for Indian Tyres is good in Indonesia Market, however need to focus on Warranty service. Hypothesis **H3_{II}** is **partially accepted** for **Quality & Brand recognition**.

B.2.) Commercial Wheel

Table No. 6.35. Paired T test statistics for Hypothesis H3₁₂

Two-sample T test for Various Characteristics(95% Confidence level)			
Commercial Wheel		P-Value	Remark
a)	Quality Comparison	0.007	Significant
b)	Brand Comparison	0.019	Significant
c)	Warranty Service Comparison	1.000	Non-significant
d)	Life of Product Comparison	0.034	Significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: -

P Value shows Chinese Component are significantly negative on Quality, Brand and Life of Product. Whereas difference is non-significant on Warranty. It inference that Market perception for Quality, Brand and Life of product for Indian Wheel Rim is good in Indonesia Market, however need to focus on Warranty service. Hypothesis **H3_{II}** is **partially accepted** for **Quality & Brand recognition**.

C) Vietnam Market

Similar exercise is conducted in Vietnam market as well for Tyre and Wheels.

C.1.) Commercial Tyre

Table No. 6.36. Paired T test statistics for Hypothesis H3_{V1}

Two-sample T test for Various Characteristics(95% Confidence level)			
Commercial Tyre		P-Value	Remark
a)	Quality Comparison	0.006	Significant
b)	Brand Comparison	0.001	Significant
c)	Warranty Service Comparison	0.185	Non-significant
d)	Life of Product Comparison	0.087	Non-significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: - P Value shows Chinese Component are significantly negative on Quality, Brand recognition. Whereas difference is non-significant on Warranty and life of product. It inference that Market perception for Quality, Brand for Indian Tyres is good in Vietnam Market, however need to focus on Warranty service and improvement of product life. Hypothesis **H3_{v1}** is **partially accepted** for **Quality & Brand recognition**.

C.2.) Commercial Wheel

Table No. 6.37. Paired T test statistics for Hypothesis H3_{v2}

Two-sample T test for Various Characteristics(95% Confidence level)			
Commercial Wheel		P-Value	Remark
a)	Quality Comparison	0.002	Significant
b)	Brand Comparison	0.783	Non-significant
c)	Warranty Service Comparison	0.512	Non-significant
d)	Life of Product Comparison	0.136	Non-significant

Source: Primary data survey of the dealers/manufacturers.

Analysis and Interpretation: - P Value shows Chinese Component are significantly negative on Quality. Whereas difference is non-significant on Brand Name, Warranty and product life. It inference that Market perception for Quality for Indian product i.e. Wheel Rim is good, however need to focus on Brand and Warrant service. Hypothesis **H3_{v1}** is **partially accepted** only for **Quality**.

Summary:-

This chapter is mainly focused on Analysis and Interpretation of data collected through questionnaire by the researcher. This session was divided in two parts. Summary of part I is given at the end of that part. Part II is mainly focusing on Hypothesis testing. Researcher has taken 3 hypothesis regarding Tyre and Wheel rim for selected market. Summary of all hypothesis is given below:-

Table No. 6.38. Summary of hypothesis testing

H1 - Thailand, Indonesia and Vietnam are importing lot of Auto Components from various countries.			
H1_{T1}	Thailand	Commercial Tyre	Partially Accepted
H1_{T2}	Market	Commercial Wheel	Fully Accepted
H1_{I1}	Indonesia	Commercial Tyre	Partially Accepted
H1_{I2}	Market	Commercial Wheel	Fully Accepted
H1_{V1}	Vietnam	Commercial Tyre	Fully Accepted
H1_{V2}	Market	Commercial Wheel	Fully Accepted
H2 - Import from other countries at lower price and vast availability in market restricts penetration for Indian Automobile Component.			
H2_{T1}	Thailand	Commercial Tyre	Accepted
H2_{T2}	Market	Commercial Wheel	Accepted
H2_{I1}	Indonesia	Commercial Tyre	Rejected
H2_{I2}	Market	Commercial Wheel	Rejected
H2_{V1}	Vietnam	Commercial Tyre	Rejected
H2_{V2}	Market	Commercial Wheel	Accepted
H3 - Market Perception for Indian Automobile components is better than Chinese components in terms of Quality, Service and Brand recognition			
H3_{T1}	Thailand	Commercial Tyre	Partially accepted for Quality
H3_{T2}	Market	Commercial Wheel	Partially accepted for Quality & Brand
H3_{I1}	Indonesia	Commercial Tyre	Partially accepted for Quality & Brand
H3_{I2}	Market	Commercial Wheel	Partially accepted for Quality & Brand
H3_{V1}	Vietnam	Commercial Tyre	Partially accepted for Quality & Brand
H3_{V2}	Market	Commercial Wheel	Partially accepted for Quality

In short in H3, for all markets Hypothesis is accepted for Quality & rejected for Warranty/Service. However accepted for brand recognition for some markets for some products.

Thus now researcher completed the presentation of analysis of objectives as well as hypothesis. In the subsequent chapter, researcher will present the findings of the study, give suggestions and conclude the research journey. Researcher will also provide clues for future research in the area of study.

Chapter- 7

FINDINGS AND OBSERVATIONS, SUGGESTIONS AND CONCLUSION

In this chapter researcher has summarized the findings from the research, various observations made while analyzing the primary as well as secondary data. Researcher made suggestions to Commercial Tyre industry and Commercial Wheel industry of India. Certain valuable suggestions are also made to Government of India regarding policy issues to ease the business for automotive industry. As a conclusion researcher tried to conclude trade relationship between India and ASEN countries and over all automobile component industry in selected countries w.r.t. Tyres and Wheels.

Researcher suggested generalized marketing model for Automobile Component Industry to take an entry in new overseas country. This model also includes some of the specific suggestion based on this research work. At the end in this chapter researcher specified impact of the study on various communities and also the future scope of study.

7.1 Findings and Observation

As explained above finding and observations are made based on various primary and secondary data studied and analyzed during this research work.

Initially researcher has made findings and observation regarding economy and automobile industry of selected countries, followed by findings related to Tyres and Wheels for specific country.

7.1.1. India Market

Indian Economy is known as the seventh-biggest in the world by Gross Domestic Product (GDP). India is also the fifteenth largest exporter and the twelfth largest importer in world. The government of India tried hard to regain the GDP in the range of 7-8%. GDP reached to 7.5% in 2015.

The demographic profile in the age group of 15 to 59 years is 64.8% of the India's total population. In 2013-14 total export from India was US\$ 312.6 Bn and total import was US\$ 312.6 Bn. In short India is doing more imports than exports which is a trade deficit and cause of concern for India. However government of India is continuously putting efforts to increase exports and reduce trade deficit. Trade deficit fall upto US\$ 138 billion in FY 2014 from US\$ 190 billion in FY 2013.

Government of India is also taking efforts to improve 'Doing Business Ranking' (Rating given by World Bank) & ranking improved by 4 points and reached to 130 no in 2016. However compare to other Asian countries like Thailand, Vietnam need to work hard to improve same further.

7.1.1.1. Indian Automobile Industry

Indian Automobile Industry is also treated as one of the largest automotive markets in the world. India's Commercial Vehicle and Passenger Car manufacturing industry is at number 6th position in the world. It is also known as Asia's 4th largest exporter. India is having 15 passenger car manufacturers, 9 commercial wheel manufacturer, 16 two/three wheeler manufacturer and approx. 14 tractor manufacturers located mainly in 4 parts of country. Major hub is Chennai in South, Pune in West, Delhi/Gurgaon in North and Kolkata/Jamshedpur in Eastern part of India.

Indian vehicle production was recovered in 2011-12 and 2012-13 after global recession, however same was dipped again in 2013-14. However after stability in government it has started picking up again from 2014-15 d Passenger car wheel production was 3.3 Mn vehicles, whereas commercial vehicle production was 697K in 2014-15.

Indian auto component is no exception to this and growing at 12-14% CAGR (Compound Annual Growth rate) and will reach US \$ 66 bn by 2018. The overall domestic demand for automobile components is increasing with 11% CAGR and reached to US\$ 38.5 Bn in 2014-15. Exports are also increasing with 29% CAGR and reached to US\$ 13.8 Bn. In 2014-15.

Auto-components are supplied to various type of vehicles, major supply is for Passenger vehicles around 45%, followed by Two wheelers around 22%. Commercial vehicles all put together i.e. HCV, MCV and LCV it is 17%. In terms of value, majority of auto components are Engine parts (31%) followed by Drive Transmission and steering parts (19%) and Body & Chassis which is 12%. India is importing substantial amount of auto component from various countries. Import from China is 23.94% and from Europe segment Germany is highest with 14.57%. Whereas India is also exporting good amount of auto components to various countries majority export is to USA (22.35%) followed by Europe Germany (7.51%) & Turkey (6.49%).

7.1.2 Thailand Market

Thailand is one of the major country in ASEAN countries with estimated GDP around 3%, inflation 2.5% and very good rank of 26 (2015) in Doing Business ranking. Thailand Automobile Policies are focusing on export expansion. To achieve export expansion plan, Thailand has signed various FTAs with Australia, New Zealand and China in 2005, and with India in 2006 and also with Japan in 2007.

The automotive components market in Thailand has developed as a key competitor in a global automotive components industry. The Thailand Government has important role to support and vision to develop the automotive industry in Thailand. Thailand has fulfilling the WTO and the AFTA regulations by opening up its automotive market. In accordance to the WTO guidelines, the Government dismissed the local content program in 2000, and has reduces its tariffs and tax structure as per the AFTA requirements in early 2002. The implementation of the AFTA helps to opened up the Thai automotive components market for all global players, and this helps the Auto industry to become more efficient and competitive. Many foreign and multi-national OEM's and components manufacturers have put in investments in Thailand market and transferred technology and money/funds into the industry. Component manufacturing industry immensely benefited because of this and now having access to the modern manufacturing technology and getting opportunity to export and supply to the various global manufacturers.

In ASEAN Countries, Thailand is one of the leading exporter of auto components to Japan and India, accounting for nearly half of all exports from ASEAN countries. India- ASEAN FTA comprising many items, including a few automotive components such as lighting equipment, suspension and transmission components, a tariff reduction will be there in these components on yearly basis. Each commodity tariff will reduce as per decided formula every year till it becomes zero.

7.1.2.1 Automobile Industry in Thailand Market

Thailand is the automotive hub of ASEAN, and famous by the name “Detroit of the East”. It is having largest automotive production in ASEAN countries and on no 9 position globally. There is positive growth in vehicle production from 2012 and 2013, however from 2013 to 2014 there has been a drop in production by almost 25%. This is mainly due to political instability in Thailand market during this period. Total vehicle sales in 2014 was 1.8 Mn vehicles. Hino and Isuzu share a very competitive market share and dominates others by big margins. Isuzu has crossed Hino in 2012 and became No 1 in Truck sales also.

7.1.2.2 Findings for Commercial Tyres:-

After summarizing finding of Thailand economy and Thailand automobile market. Below are the specific findings related to selected components in Thailand Market. Researcher has selected Tyre and Wheel for survey. Below are the finding and observation for commercial tyres after analyzing primary and secondary data.

- 1) Total Spare Market demand for Commercial Tyre in Thailand Market in 2012 was 800k with growth rate of 8-10%. This requirement was expected to increase upto 950K by 2014. There is a strong presence of domestic manufacturer in Tyre market. Almost 80% requirement is fulfilled by Domestic production. China Tyre penetration is about 15% and increasing. Indian Tyres are present at very small quantity with 1%. Other countries like Korea, Indonesia are also present with approx. 5%.

- 2) Demand for Radial and Tubeless Tyre are increasing due to technological advantage. Penetration in 2012 was 40%, whereas traditional Bias and Tube type tyre penetration is still 60%.
- 3) Main requirement of Tyre Sizes in Thailand market are 10R-20 (37%) (Tube Type Tyre), 11R22.5 (36%) (Tubeless Tyre) and 295-80/R 22.5 (18%). Penetration of Tubeless Tyres are increasing.
- 4) Major Tyre Brand in Thailand Market are Bridgestone – 30%, Michelin- 30%, others -30%. Michelin and Bridgestone are having domestic production. Whereas in Vehicle major brands are Isuzu (46%), Hino (42%) and Fuso (12%).
- 5) While buying commercial tyre first priority of consumers is Quality and Brand name. As tyre is costlier part, consumers are more careful about quality and brand name of the tyre. Warranty/Service is also important and next priority. Warranty normally associates with Brand name/manufacturer name in case of big manufacturers like Michelin & Bridgestone. Price is next factor which is definitely important, but consumers are ready to pay price for quality if required.
- 6) Market Perception for Tyres from China - As a strategy China is selling at low price with good availability in market. Perception regarding Quality, warranty and life of product is low. However due to low price and good availability in market, penetration potential is high.
- 7) Market Perception for Tyres from India -Though presence of Indian tyres are small in Thailand market still the overall perception is Medium Price, Medium Quality and life of product. Low on brand name, warranty and availability in market. Having medium penetration potential,
- 8) Market Perception for Tyre from Domestic production - Michelin, Bridgestone, Maxxis are some of the domestically produced tyres. Overall perception is high Price, good Quality, good Brand name, also good in Warranty, Availability in market and life of product. Hence good penetration potential.

- 9) Import Duty for China Tyre - 10 %. India Tyre - 7% and other countries 10%. In short Thailand FTA with India is beneficial for Tyre while importing Tyres from India.

7.1.2.3. Findings for Commercial Wheel Rims:-

Below are the major findings regarding commercial wheel rims for Thailand Market.

- 1) Spare Market demand for Commercial Wheels was @ 100k with growth rate of 10-12% in 2012, which is expected to increase upto 135K by 2014. There is no domestic manufacturer for Wheel rim. Hence good penetration from China wheels almost 80%, market share is captured by Chinese wheels. Indian wheels are also present with approx. 10% SOB. Wheels from other countries like Indonesia/Japan is also present with 10% market share.
- 2) To support increasing demand for radial and Tubeless tyre, in wheels also Tubeless Wheel penetration is increasing and 40%, Whereas Tube type wheel penetration is 60%.
- 3) Main Sizes are 7.0/7.5-20 (52%) Tube type Wheel, 22.5X8.25 (30%) Tubeless wheel, and 6.0-16 (8%) LCV wheel. Penetration of Tubeless Wheels are increasing.
- 4) Major Wheel Brand in Thailand Market are Various Chinese Wheels (72%), Hayes Lemmerz India (12%), others (10%). Good brand image for Indian wheels.
- 5) While purchasing Commercial wheel, buyers first priority is Price and availability in market. Exactly opposite to Tyre!! Comparatively wheel is not as costly as Tyre & bit rigid in nature, hence buyers are looking for more cheap option for same. As market is changing from Tube type to tubeless, quality also started playing important role in buyers' decision. Brand name, Warranty/Service, origin of country are considered as less important as lot of brands are getting imported from China.

- 6) Perception for Wheels from China is Low Price, Low Quality, warranty and life of product Medium on brand name however good in availability of market hence penetration potential.
- 7) Market Perception for Wheels from India is High Price, Good Quality and life of product good on brand name compare to China, however low on warranty and availability in market. Having good penetration potential due to increase in tubeless wheel demand.
- 8) Market Perception for wheels from other brand from Japan, is High Price, Good Quality and life of product medium on brand, however low in availability in market and penetration potential.
- 9) Import Duty for China 0 %. India 10-30% and other countries 10-30%. In short Thailand FTA with China is more beneficial than FTA with India for this commodity. Duty difference is making Indian wheels noncompetitive in Thailand market.

After summarization of finding from Thailand Market, in next section, findings and observation of Indonesia are summarized.

7.1.3 Indonesia Market

Indonesia is also one of the important country in ASEAN countries reach in natural resources with large and youthful domestic market. Good GDP rate around 5.3% with 6 %, inflation. Rank of 114 (2015) in Doing Business ranking.

Due to the regional economic crisis in 1997 and 1998 Indonesia is forced to liberalize its domestic market as per the guidelines of International Monetary Fund (IMF). It also applies to automotive policy in Indonesia which was modified and revised during the process of liberalization of domestic market. The revised automotive policy consists of the following:

- Revised and reduced import tariffs for completely knocked down (CKD) and completely built unit (CBU) vehicle units. No more restrictions to import CBU vehicles

- There is sea change in automotive industry and now permitted local manufacturers to import components from competitive suppliers outside the country. This leads to increase in imports of various parts in Indonesia.

The revised policy brought in competition from the imported vehicle segment creating a more competitive vehicle industry in Indonesia.

Indonesia implemented the AFTA (Asian Free Trade Agreement) in 2002 and AIFTA (Asian India Free Trade Agreement) in 2009. These implementations gave high impact on the Indonesian automobile industry. Now manufacturers can able to bring down their costs through the ASEAN Industrial Cooperation Scheme (AICO) scheme, in which imported automotive components within ASEAN are charged with import duty of 5.0 percent. The importing countries however, need to have at least 30 percent local interest or equity. The companies involved in this must also fulfill 40 percent local content requirement. Indonesia also both these arrangements reduced the cost of production and have led to lower vehicle prices in Indonesia. Indonesia's share of imports was one of the top at 34% of India's total imports among all the ASEAN.

For exports to Indonesia, the component manufacturers needs to apply for SNI certificate and fulfill requirements of SNI.

7.1.3.1 Automobile Industry in Indonesia Market

The automotive industry is one of the major manufacturing sector for Indonesia as well. Many of the big OEM in the world have focused and started putting facilities in this country know as Southeast Asia's largest economy. Investment in the automotive sector in 2013 was approx. US\$3.7 billion, which is actually 10 times more than in 2010.

Automobile vehicles. The growth is ranging from 8-25%, which is really promising. In year 2011 the growth reported @ 20% over 2010. Almost 50% growth in vehicle production in 4 years of time i.e. from 800K it has reached to 1300K. Car manufacturing is almost doubled i.e. from 500K it has reached to 1000K

7.1.3.2 Findings for Commercial Tyres:-

Summary of major finding and observations for Indonesia Market for commercial tyre are given below. Indonesia is known for mining market so overload and bad roads are common factor in Indonesia.

- 1) Total Spare Market demand for Commercial Tyre @ 200k with growth rate of 20% in 2012. This requirement is expected to increase upto 250K by 2014. This country also dominated by domestic production of tyres and almost 75% requirement is fulfilled by Domestic production. China Tyre penetration is about 10-15% and increasing. Good amount of imports from India as well approx. 10%, due to strong demand of Bias tyres. Indonesia is known for Mining industry and heavy load and bad road are the common factors which increases demand for tyre and wheel rim.
- 2) Radial and Tubeless Tyre penetration is 15%, however still dominated by Bias and Tube type tyre penetration is 85%. However due to heavy application in Indonesian market, it is not shifting to Tube less tyre as fast as Thailand market
- 3) Main Sizes are 10/11R-20 (60%) Tube type tyres, 12R-24 (15%) Tube type tyres for mining application and 295-80/R 22.5 (15%) Tubeless tyres. Penetration of Tubeless Tyres are increasing.
- 4) Major Tyre Brand in Indonesia Market are Bridgestone – 40%, Michelin- 20%, MRF India -10%. Bridgestone & Michelin are having local production.
- 5) First priority of consumers while purchasing Commercial tyre is Quality and Brand name. Second important parameter is availability in market and price of tyre. Warranty normally associates with Brand name/manufacturer like Michelin & Bridgestone.
- 6) Market Perception for Tyres from China is Low Price, Low Quality, warranty and life of product and brand name. However as a strategy good availability of market, and similar to Thailand market due to price advantage and availability in market good penetration potential. Product life is very less due to heavy mining

application, however Chinese suppliers are offering Radial tyres, which is advantage.

- 7) Market Perception for Tyres from India is Medium Price, Good Quality and life of product. Good on brand name like MRF is well known brand in Indonesia. , Good on availability in market as good dealer network. Second important parameter is availability in market and price of tyre. Warranty normally associates with Brand name/manufacturer name in case of big manufacturers like Michelin & Bridgestone.
- 8) Market Perception for Tyre from Domestic brand is High Price, Quality, brand name, Warranty, Availability in market and life of product. Hence good penetration potential.
- 9) Import Duty for China 15 %. India 15% and other countries 15%. In short no advantage for FTA for this product. 15% is bit higher duty, which make Indian Tyre industry difficult to compete with domestic product as well as Chinese imports.

7.1.3.3 Findings for Commercial Wheel Rims:-

Below are the major findings regarding commercial wheel rims for Indonesia Market.

- 1) Spare Market demand for Commercial Wheels was @ 110k in 2012 with growth rate of 10-12%, expected to increase 150K by 2014. In Indonesia market 2 wheel manufacturers are present namely Palingda and Auto Korindo. However they can produce upto 20” wheel size and catering to 25% demand of the market, as their main focus is OEM market. Due to limitation from domestic manufacturers good penetration for Chinese wheels almost 50%. India and Turkey is 5% and 10% each. Indian and Turkish wheel rims are preferred for heavy load application in mining area.
- 2) Like other Asian market Tubeless Wheel penetration is increasing and in 2012 it was 15%, whereas Tube type wheel penetration is 85%. Due to heavy load application still market prefers tube type wheel over tube less wheel.

- 3) Main Sizes are 7.0/7.5-20 (60%) (Tube Type wheel), 22.5X8.25 (10%) (tube Less Wheels), 8.0-20 (15%) and 8.5-24 (15%). (Both are Tube Type for mining application) Penetration of Tubeless Wheels are increasing with slower space.
- 4) Major Wheel Brand in Indonesia Market are Chinese Wheels (57%), Indonesian Wheels (21%), and Turkish Wheels (10%). As Indonesian wheels are focusing mostly on OEM market, Chinese Wheels are leading player in Spare market.
- 5) First priority of consumers while purchasing Commercial wheels rim is Quality, as per end users wheel is lasting hardly for 6 months if not a good quality product in market. Hence customer requires good quality wheel. Second priority is availability in market over Price. Next preference is given to Brand name, Warranty/Service provided by wheel supplier and also origin of country.
- 6) Market Perception for Wheels from China is Low Price, Low Quality, warranty and life of product low on brand name however good in availability of market and penetration potential. As explained above wheels last for 3-4 month.
- 7) Wheels from India having smaller SOB i.e. 5%. Indian Wheels still preferred for heavy duty application. Overall market perception is Medium Price, comparatively good Quality & life of product. Medium on brand name, however low on warranty and, availability in market. As market requires good quality wheel rim, good penetration potential in mining area (Niche market).
- 8) Market Perception for wheels from other brand mainly imports from Turkey is High Price, Good quality, life of product, brand name, availability in market but low in warranty and service. Jantsa and Jantas are two brands known in Indonesia market.
- 9) While considering Import Duty for various countries import China 15 %. India 15% and other countries 15%. In short no advantage of FTA for Indian product. Import from other ASEAN countries will be with 5%.

7.1.4 Vietnam Market

Vietnam is one of the fast growing country in ASEAN countries having good GDP rate around 5.6% with around 6 %, inflation. Doing business rank of 78 (2015) in Doing Business ranking, which is good rank comparative to other ASEAN countries.

As a part of ASEAN Free Trade Area (AFTA) and Common Effective Preferential Tariff (CEPT) will help Vietnam to become a hub for auto components, which can supply to ASEAN region in near future by utilizing its competitive advantages. Vietnam became member of ASEAN countries in 1995 and also participated in AFTA in 1996. It has also become a member of WTO in 2007. Vietnam presently catering 6 percent of the auto components exports from ASEAN countries to Japan. Some of the global Japanese components manufacturers has established their operations due to low cost and exporting back to Japan. Currently Vietnamese local manufactures and state enterprises are in process to export to Japan.

Present tax structure for automotive and auto components are so designed that it encourage exports and tries to protect local manufacturers.. Lot of corporate tax incentives available for newly establishment, mainly to those companies which are located in investment zones. Automotive and auto components are presently not included in the list of encouraged investment sectors, but some of the investment projects related to automotive industry may be entitled to some tax incentives based on various criteria. Being a part of ASEAN countries, Auto components imported or exported within ASEAN countries are eligible for only 5% duty. Funds for Import duty available for whatever raw materials used for Export goods. An extension of import duty payment is also available to reduce working capital requirements. Import duty for CKD parts are totally removed, however applicable for loose parts.

7.1.4.1 Automobile Industry in Vietnam Market

Vietnam auto industry started after the reform in 1986. After 20 years of industry development companies like Honda, Toyota, Ford, GM, etc. finally entered Vietnam through sole proprietorship or joint-investments. Most of auto parts manufacturers are SME's and focusing on simpler parts like seats, batteries etc and majority of automobile industry is depended upon imports mainly from nearby Asian countries.

Due to various reason and supply chain issues local sales in Vietnam is still low however started growing from 2013 onwards. Due to political instability & global recession the sale was down in 2011 and 2012, which started picking up from 2013 & crossed 133K production.

7.1.4.2 Findings for Commercial Tyres

Major findings for Vietnam Market for commercial tyre are given below. In Vietnam market also Overloading is common practice observed.

- 1) Total Spare Market demand for Commercial Tyre @ 275K with growth rate of 8-10%. Which is expected to reach 325K by 2014. The market is expected to grow by 50% in 5 years' time. There is no Domestic Tyre manufacturer. However major imports from ASEAN countries like Thailand approx. 50%. China Tyre penetration is also around 25% and increasing. Good presence from Indian Tyres also approx. 25%.
- 2) Increase in Radial and Tubeless Tyre penetration also observed in Vietnam and in 2012 penetration was 35-40%, whereas Bias and Tube type tyre penetration was 60-65%. Similar to Indonesia due to overloading still Bias tyres are preferred.
- 3) Main Sizes for commercial tyres are 10/11R-20 (50%) (Tube Type), 12R-20 (15%) (Tube Type) and 11R- 22.5 (25%) (Tube Less). Penetration of Tubeless Tyres are increasing.
- 4) Major Tyre Brand in Vietnam Market are Bridgestone – 35%, Michelin- 15%, Mexis -10%. All these brands are imported from Thailand and strongly marketed in Vietnam.
- 5) While purchasing Commercial Tyre consumers are preferring Quality and Brand name. Market availability and Price are the next important priority.

- 6) As a common strategy for Chinese product in Vietnam also Chinese Tyres are available at low price with good availability. Market Perception for Chinese Tyres is also Low on Quality, Brand name, warranty and life of product, however due to good in availability, low price and Radial Tyre good penetration potential.
- 7) Good no of Indian Tyres are present in Vietnam market, mainly Bias tyres. Market Perception for Indian Tyres is Medium on Price, good Brand name as MRF & JK tyres are respected brands in Vietnam market. Also good on Warranty, Availability and life of product. Overall good penetration potential, however need to introduce Radial tyres in market with faster space.
- 8) Market Perception for Tyre from Thailand is High Price, Good Quality, brand name, Availability in market and life of product. However low on warranty. Hence good penetration potential.
- 9) Import Duty for China 25 %. India 25% and other countries (Thailand) 5%. In short No advantage for FTA for this product. As ASEAN countries having less import duty, they enjoy good margins over Indian product.

7.1.4.3. Findings for Commercial Wheel Rims:-

Some of the major findings regarding commercial wheel rims for Vietnam Market.

- 1) Total Spare Market demand for Commercial Wheels as approx 50 k with growth rate of 10-15% expected to increase upto 78K by 2014. In Vietnam market there is a small wheel rim catering to small part of market with 10% market share. Around 80% market is dominated by Chinese product. Imports from China are dominating mainly due to low price and huge availability in market. Small presence of Indian wheels 3% also some presence from Korean wheels approx. 8-10% due to Korean Vehicles Hyundai are in the market.
- 2) As Tubeless tyre penetration is increasing so Tubeless wheel penetration also increases and in 2012 it was 25%, whereas market is still dominated by Tube type wheel penetration of approx 75% due to overloading factor.

- 3) Main Sizes for commercial wheels are 7.0/7.5-20 (60%) (Tube type wheel), 22.5X8.25 (30%) (Tubeless Wheel), and 8.0-20 (15%). Penetration of Tubeless Wheels are increasing.
- 4) Major Wheel Brand in Vietnam Market are Various Chinese Wheels (70-80%), Korean Wheels (10%), and Local Wheels (10%).
- 5) Vietnam market, the first priority of consumers while purchasing Commercial wheels rim is availability in market followed by price of the product. Next important factor is Quality of product
- 6) Market Perception for Wheels from China is Low on Price and Quality, low on warranty and life of product and brand name however good in availability of market and penetration potential.
- 7) Very little presence of Indian wheel rim in Vietnam so Market Perception for Wheels from India is Medium Price, Medium on Quality and life of product, Low on brand name, warranty and availability in market. Having medium penetration potential and need to focus on this market.
- 8) Market Perception for Wheels from other countries like Korea is Medium Price, Good quality, medium Availability, medium on life of product, brand name and having medium penetration potential.
- 9) Import Duty for China 25 %. India 25% and other countries 25%. In short no advantage of FTA for Indian product, however 25% is real high duty making Indian product expensive. However if Indonesia or Malaysia starts exporting to Vietnam the duty will be 5%.

7.2. Suggestion and Recommendations:-

Findings and observations are normally based on data collection and analysis of primary and secondary data collected so far. After this findings and observations, important role of researcher is to give suitable suggestions and recommendation based on the study and mainly on findings and observation made during the research. Here

researcher is proposing some suggestions to Commercial Tyre Industry, Commercial Wheel Industry and Government of India.

Selected 3 countries are ASEAN countries located nearby and facing almost similar situation regarding market perception, market strategies from local as well as Chinese manufacturer, these countries are also going through technological changes. Researcher has proposed common suggestions for Tyre industry, Wheel Industry and Government of India for all 3 countries.

7.2.1 Commercial Tyre Industry:-

Apart from cheap Chinese tyres in ASEAN countries, there is strong presence of domestically produced branded product in this area, having good penetration. In this light following suggestions and recommendations proposed to Indian Tyre Industry.

- 1) South East Asian market is growing. Demand for Tyre market in Thailand is growing by 8-10%, Indonesia about 20% and Vietnam 8-10% per annum. Presently Tyre manufacturers are focusing on 2-3 select countries, however in light of present FTA with ASEAN countries, Indian Tyre manufacturers can focus on majority of ASEAN countries.
- 2) It is observed that Indian Tyre manufacturers are strong in Bias Type tyre technology. S.E. Asian countries still using Bias type of tyre ranging from 60-80%. Hence like Indonesia and Vietnam market, they can target Thailand and other Asian markets initially with Bias Type of tyres to take an entry and establishment.
- 3) There are certain markets like Vietnam, where there is no Tyre manufacturer, Indian Tyre manufacturers should find out such markets in ASEAN countries and target those.
- 4) The major size consumed in Bias is 10R-20, which Indian manufacturer can target. However there are some new emerging sizes due to Tubeless Tyre requirement of Radial tyre requirement like 295-80/R 22.5, which needs to consider and make available for market.

- 5) All the S.E.ASEAN market are shifting towards new technology of Radial Tyre and also Tubeless Tyre. Present penetration is 20-40% and increasing in all markets. Indian manufacturers are bit weak in this area. Having potential to develop this technology, Indian Tyre manufacturer's needs to understand the changing trend and expedite the development.
- 6) Overall market perception of consumer is that consumer preferring Quality and Brand over price and origin of country while purchasing the tyre. Perception for Indian Tyre brand is low or medium in ASEAN countries, considering that Indian Tyre manufacturers needs to focus on Brand building in these countries.
- 7) Market perception for Chinese Tyre is low price and Low Quality, however for local manufacturer are High Quality and High Price. Perception for Indian Tyres is Medium Price and medium Quality. It is suggested that Indian Tyre manufacturer can take entry with Medium price but with a good Quality product to improve perception about Quality and to become successful in market.
- 8) It is also observed that perception of Indian Tyres are on lower or medium side regarding availability in market, warranty and service so low on penetration potential. As these are important factors to improve penetration, Indian Manufacturers needs to focus on this area to improve availability in market and offering warranty or service in line with domestic Tyres warranty.
- 9) Present Import duty for Indian Tyre is normally high for ASEAN countries (Except Thailand) in the range of 15-20%. Indian Tyre manufacturers association can approach to Indian government and suggest to add this item in FTA priority list/mechanism to reduce duty as fast as possible.
- 10) However for Thailand the import duty for tyre is 7%, which is advantageous over other countries. Indian Tyre manufactures can take advantage of same while taking entry and deciding pricing strategy.

- 11) It is suggested to visit and participate in Exhibitions related to Truck and Bus to build brand image and choosing correct trading partner.
- 12) Normally strategy followed by Indian Tyre manufacturer is to go with own office/branches or dealer, however it is suggested that they can also check for allied product like wheel or Axle and make a joint strategy to approach Spare and Trailer manufacturer.
- 13) It is observed that some of the markets in S.E. Asia like Thailand, Indonesia are already dominated by local production by Tyre manufacturers like Bridgestone, Indonesia and they enjoy 5% duty benefit while exporting to other ASEAN countries. However some countries like Vietnam do not have Tyre manufacturers. Indian tyre manufacturers can think of setting up plant in such countries to cater S.E. Asian market. Basic raw material like rubber is also available in this area so it will be advantageous to import raw material at lower price with duty advantage and also to cater ASEAN market demand.
- 14) With setting up plant in this region Indian Tyre manufacturers can also target OEM customer or other Niche market customers like off highway application.
- 15) Tyre manufacturers are suggested to check any regulation, certification required by importing country. Like SNI certification required for Indonesia & make necessary compliance of same before starting exports.

7.2.2 Commercial Wheel Rim Industry

Overloading, Bad road, mining application are some of common practices in ASEAN countries in addition to that there are very few wheel manufacturers present in this area, hence Chinese wheels are dominating the market with low price. In this light following are the suggestions and recommendations made to Indian Wheel Industry.

- 1) South East Asian market is growing. Demand for commercial wheel rim market in Thailand, Indonesia and Vietnam is growing by 10-12% per annum. Very little presence of Indian Wheel rim manufacturer in S.E. Asian countries.

Considering present FTA and trade between ASEAN countries and India, Wheel manufacturers can focus on majority of ASEAN countries.

- 2) It is observed that Asian countries are mainly dominated by Tube Type wheels of approx. 60-70%. Chinese wheels are dominating this sector with very low price. However Tubeless wheel rim penetration is increasing and requires quality wheel rims. Indian Wheel rim manufacturers are having better product available for this segment. It is suggested that Indian Wheel rim manufacturer can target Tubeless wheel segment to take an entry.
- 3) The major size in Tubeless wheel rim is 22.5X8.25” and 22.5X7.5”. However majority consumption is Tube type wheels of 7.5-20”. It is observed that in Tubetype wheels Chinese products are dominating market with low price, so Indian manufacturers can focus on Tubeless wheels, where Quality is one of the requirement and can target some premium for Quality product.
- 4) It is also observed that certain markets are niche markets, where requirement is of Heavy duty wheel rim. For e.g. Mining sector in Indonesia Market (Requirement of 8.0-20 and 8.5-24”). Chinese wheel rim are not performing in this area, It is suggested that Indian Manufacturers can develop suitable product for such markets and take an entry.
- 5) No major wheel rim manufacturing company in most of the S.E. Asian countries, hence Indian wheel rim manufacturers can focus on these countries. Also Indian wheel rim manufacturers can think of starting manufacturing facility in this region. As trade between ASEAN countries having import duty 5%, it will be advantageous to start facility in this region.
- 6) There is a huge OEM market present in S.E. Asian countries, as mentioned above as there is no wheel rim manufacturer present, Indian wheel manufacturers can also target this market and start approaching to OEM customer. As OEM requires branded, Quality product, Indian products will get preference over Chinese product and also some premium in price with OEM customers.

- 7) Overall market perception of consumer is that consumer preferring Price and availability in market over Quality and Brand Name. Due to this Chinese Products are successful in Asian countries. Price is really low of Chinese product and having good availability in market. Perception for Indian Wheels is High Price and Good Quality product. It is suggested that Indian wheel manufacturer can focus on Niche market with customized product or technologically advanced good quality product with appropriate pricing strategy.
- 8) It is also observed that perception of Indian wheel rims are on lower or medium side regarding brand name, availability in market, warranty and service, penetration potential. As these are important factors to improve penetration, Indian Manufacturers needs to focus on this area also.
- 9) Present Import duty for Indian wheel is from 10-30% in Thailand Market, 15% in Indonesian Market and 25% in Vietnam Market. Such a high duty is disadvantageous and increasing price of product. In Thailand Chines product duty structure i.e. 0%. Indian Manufacturer can be careful while choosing HS code while exporting the goods so that min duty will be applicable and also need to follow up with government to consider revision of duty for this product in FTA.
- 10) Indian Wheel manufacturer can make a tie up with allied product like Tyres and can promote wheel rims along with major tyre brand like Michelin/ Bridgestone. Tyre companies network are strong in S.E. Asian countries. Tyre companies requires new technologically advance wheel rim (for e.g. 17.5X6.00 External valve tubeless wheel) to introduce new tyre sizes, Indian Wheel manufactures can support with such new development with quality product.
- 11) Indian Wheel manufacturer can also introduce technologically advanced product or light weight product, which is now a requirement of all markets due to environmental norm with help of Tyre manufacturer as mentioned above.
- 12) It is suggested to visit and participate in Exhibitions related to Truck and Bus to build brand image and choosing correct trading partner. This will also help to get

overall feel about market, requirement, competitors etc.

- 13) Certain countries are having mandatory regulation of imports. E.g. SNI certificate is compulsory for Indonesia market. Suggested to take care of such regulations/certificate before dispatch.

7.2.3 Government of India

- 1) New foreign trade policy 2015-20, has simplified various incentive schemes by government of India and merged various scheme. Which is a welcome move for exporters. Government of India also signed various FTA's with various countries including ASEAN countries, which is really helping to increase trade between India and ASEAN countries. However major focus is given on major 4-5 countries in ASEAN. Other countries are also having good potential for export, it is suggested to take initiative on governmental level to develop more trade activities of other ASEAN countries as well.
- 2) It has been observed that duty structure for most of the Automobile products is in the range of 10-30% compare to duty for ASEAN countries 5% and China - 0% in some countries like Thailand and Malaysia. Suggested to consider Automobile components on priority list, where duty can be reduced to lower tariff.
- 3) FTA is slashing the duty year on year, the process is slow i.e. 1 % slashing of duty every year. To reduce duty from 30 % to considerable years will take time and Indian products will remain noncompetitive. Suggested to design mechanism to slash the duty on faster mode.
- 4) One of the main reason of competition from China is export incentives provided by Chinese government for their export around 17%, whereas export incentives given by Indian government is ranging from 2 to maximum 4% under various scheme. Government can work further on Export incentive schemes and suggested to make compatible with other countries like China.

- 5) Indian government embassies, government bodies like Chamber of commerce are suggested to support Indian manufacturers to find reliable trade partners while taking an entry in new market.
- 6) Natural rubber is imported from ASEAN countries to India to make tyres, however import duty for this rubber is very high and no much advantage to Indian Tyre producers due to current FTA. It is suggested to add this item as well on priority list to reduce import duty to make Tyre manufacturers more cost competitive.
- 7) It is also observed that Port facilities, cost to reach Indian ports and Port handling cost is on higher side compare to other countries. Suggested to take appropriate steps to improve port facilities to expedite cargo movement and cost part to make Indian manufacturers cost competitive.

Apart from above specific suggestion to Tyre, Wheel Industry and Indian government, researcher has certain suggestion to make overall Automobile component Industry, which is covered in conclusion as “Model for Marketing Strategies for Indian Auto-component manufacturers”.

7.3 Conclusion

It has been observed globally that Chinese products are penetrating in market with low price and huge availability with variety. ASEAN countries are no exception to that. In addition to that China is having locational advantage with ASEAN countries. Also having traditionally good relationship and free trade agreement with most of countries like Thailand, Malaysia. As a strategy Chinese products are widely available at low price with variety. Researcher has studied the same in context of Commercial Tyre and Wheel and proposed suggestion and model to enter in ASEAN market.

As Government of India is also promoting more and more exports, lot of initiatives are taken on government front as well to facilitate export and increase trade. As explained in chapter 3 the new Foreign Trade Policy 2015-2020 is really a simplified policy, in which 5 different incentive schemes are now merged in one simplified

scheme as MEIS for goods & SEIS for various services. Star house status is also helping various exporters to take advantage of various facilities to make export easy.

Government of India is also taking initiative and signing Free Trade agreements with various countries. These free trade agreements are helping participating countries to improve trade relation and increase trade. One of such FTA - ASEAN-India Free Trade Agreement (AIFTA) signed between India and ASEAN countries on 13 August 2009. Trade between India and ASEAN countries increased due to same. Below the researcher has covered the trade between India- ASEAN countries and its impact on Automobile component industry.

7.3.1 India – ASEAN Trade relation

As mentioned earlier India has put up lot of emphasis on increasing trade relations with ASEAN countries in recent years. After the post-reform period, India's export and Import with ASEAN has significantly increased. The initial work on framework of FTA started in the third India-ASEAN Summit in Laos conducted in November, 2004. At last ASEAN countries and India signed the ASEAN-India Trade in Goods (TIG) Agreement in Bangkok on 13 August 2009. This agreement between the ASEAN-India Trade in Goods Agreement opens the way for the creation of worlds one of biggest free trade areas (FTA) - market which consist of 1.8 billion people with a combined GDP of US\$ 2.8 trillion.

Table No – 7.1 Indian Merchandises Trade with ASEAN countries
(2000-01 to 2011-12) (US \$ Billion)

Year	Export to ASEAN Countries	Import from ASEAN Countries	Trade Turnover	Balance of trade
2000-01	2.91	4.15	7.06	-1.23
2001-02	3.46	4.39	7.85	-0.93
2002-03	4.62	5.15	9.77	-0.53
2003-04	5.82	7.43	13.25	-1.61
2004-05	8.43	9.11	17.54	-0.69
2005-06	10.41	10.89	21.30	-0.47
2006-07	12.61	18.11	30.72	-5.50
2007-08	16.41	22.68	39.09	-6.26
2008-09	19.14	26.20	45.34	-7.06
2009-10	18.11	25.80	43.91	-7.68
2010-11	25.63	30.61	56.24	-4.98
2011-12	36.74	42.53	79.27	-8.79

(Source: - Data from Indian Ministry of Commerce and Industry)

Analysis and Interpretation - Above is the data collected for 10 years showing trade between India and ASEAN countries. After signing of FTA mainly after 2009 the trade started increasing. India and ASEAN countries decided to set a target of \$100 billion turnover for the bilateral trade by 2015. As per above table it has reached to \$80 billion by 2012. Almost double the growth after signing of FTA in 2009. This data is representative data to show spurt in Trade from 2010 to 2012 between participating countries. It is also important to notice that the Imports are more than the exports, however it is quite possible as India as a single country having trade with 11 different ASEAN countries and lot of natural minerals like coal, rubber, iron ore are imported to India from ASEAN countries.

7.3.2 Automobile Component

The trade between India and ASEAN countries has increased significantly. For automotive component also HS Code – 8701 to 8705, it is observed that Export from India to Thailand and Import from Thailand to India (table 6.1.6) increased @ 15-20% for the period of 2008-12. For Indonesia also the growth is in the range of 10-15% (table 6.2.6) and so for Vietnam market (table 6.3.6) the export increased from 14 Mn INR in 2008 to 26 Mn INR in 2012 almost double & imports are increased from 1 Mn INR in 2008 to 9.6Mn INR in 2012. In short due to Globalization impact and various FTA lot of opportunities are generated for export as well as import between India and ASEAN countries.

At the same time similar opportunities are also available with other countries like China and they are more aggressive than India. Due to China-ASEAN Free Trade Area (CAFTA), there are significant advantages for Chinese product as well. It is observed that most of the markets are dominated by Low price Chinese products, which makes entry of Indian product difficult. However same time it is also observed that perception of Indian product is better on Quality over Chinese product. Considering same and after analysis of competition Indian Automotive Component Manufacturer needs to formulate their strategy for different market.

A) Commercial Tyre & Wheel industry in Thailand market:

Thailand Tyre market is dominated by local production by foreign brands like Michelin/Bridgestone and also due to Low price from Chinese product, it is difficult

for Indian Tyre manufacturer to gain substantial market share. But with Medium price and good product police with correct partner, improving brand image and availability focus on Niche market and trailer manufacturers. Also need to work on introducing new technological product like Radial tyres.

Commercial Wheel industry in Thailand market is dominated by low price from Chinese product. However still there is a segment which requires good quality product and also OEM and Tyre manufacturer's wants to introduce new sizes in market, where they need support from Wheel manufacturer. As there is no domestic manufacturer, good potential for Indian wheel manufacturer to focus on Niche market and make tie up with Tyre manufacturer. Also can approach OEM's for supplies and future development. However need to be careful on duty part and approach Indian government to work on same.

B) Commercial Tyre & Wheel industry in Indonesia market:

Indonesia Tyre market also having major presence by local production by foreign brands like Michelin/Bridgestone and also due to Low price from Chinese product. Still Indian Tyre manufacturers are present with 10% market share due to Quality and correct pricing policy. Traditionally Indonesian market is known for Heavy load usage due to mining application, so need to introduce Heavy duty product suitable for such application, where premium price can be claim. Also need to work on introducing new technological product like Radial tyres and OTR i.e. off the road tyres. Also need to remember SNI certificate requirements for Import to Indonesia.

Commercial Wheel industry in Indonesia market required better product life/Warranty and Quality. Presently dominated by Chines product with 60% SOB. However due to mining application Indonesia market requires good quality product as average wheel life is 3-4 months. Other countries like Turkey wheels are gaining some share on quality. Hence good potential for Indian wheel manufacturer to focus on Niche market and make tie up with Tyre manufacturer. Also can approach OEM's for supplies and future development. Need to develop tailor made products like 8.0-20 and 8.5-24 to meet market expectation and also to introduce new technological product like Tubeless wheels and other niche market wheels like Military and off highway application. Also need to remember SNI certificate requirements for Import to Indonesia.

C) Commercial Tyre and Wheel industry in Vietnam market:-

Vietnam Tyre market is dominated by foreign brands like Michelin/Bridgestone import from Thailand due to duty advantage and also due to Low price from Chinese product. Still Indian Tyre manufacturers are present with 25% market share due to Quality and correct pricing policy. Heavy load usage is increasing in Vietnam as well. So need to introduce Heavy duty product to meet customer expectations. Also need to work on introducing new technological product like Radial tyres and OTR i.e. off the road tyres.

Commercial Wheel industry in Vietnam market is still dominated by Price, however awareness of better quality product is increasing due to heavy load application. Due to low price from Chinese product they have gain 80% market share though the quality is not good. Tyre manufacturer's wants to introduce new sizes in market, where they need support from Wheel manufacturer. Other countries like Korea wheels are present with some share on quality and Korean OEM presence. Hence good potential for Indian wheel manufacturer to focus on Niche market and make tie up with Tyre manufacturer. Also can approach OEM's for supplies and future development. Need to develop tailor made products like 8.0-20 and to meet market expectation and also to introduce new technological product like Tubeless wheels and other niche market wheels like Military and off highway application.

7.4 Model for Marketing Strategies for Indian Auto – Component manufacturers

As the strategies differ from product to product, here the researcher is suggesting generalize Marketing Model for related to Automobile component manufacturers to take an entry in new international markets. However this is a guidelines and actual strategy may differ from product to product. Though some of the steps will appears common, but researcher also tries to include specific points based on this research, which are highlighted below.

- 1) Study the Social and Economic Culture of the country. Economic indicators like GDP, currency, FDI and Credit rating (Doing Business Ranking) etc. That indicates whether the market is growing or not, how easy to do a business, which will help to choose particular country to target.

- 2) Study the market in detail of targeted country where one needs to take an entry. For e.g. Automobile Market. Present growth and potential of this market. OEM present and their market share.
- 3) Study India's Foreign Trade policy. **Export incentive** for selected product. Any **Free Trade Agreement** with Target country, duty structure for product. Also needs to study foreign trade policy (Mainly Import Policy) of Targeted countries. Any **trade barrier for selected product??** Bilateral trade agreement with ASEAN countries is one of the recent example of FTA signed by India in 2009.
- 4) **Select appropriate HS code** for the targeted product, for e.g. **Truck wheel is having 30% import duty** in Thailand, however **trailer parts are having 10% duty**. Also need to take care of duty reduction Year on year and requirement of certificate of origin for duty calculation.
- 5) Need to understand **Trade Barrier, mandatory requirements** for e.g. in case of **Indonesia SNI certificate** is one of the essential condition. **Need to appoint agency for this certification** and needs to understand and complete this certification.
- 6) Conduct market research for following parameters:-
 - To understand exact product requirement (Technical Details like size, type etc.)
 - Market Potential, Business Practices related to product
 - Competition (Domestic or Overseas). Present pricing. Duty difference for various countries for same product. Advantages/Dis-advantages due to duty!!
 - Customer requirement/expectations of Quality, price, service etc.
- 7) Visit 2-3 OEM's to understand their practices, policies, preferences, present sourcing and potential for target product. For e.g. ASEAN countries prefer Localization policy i.e. import from ASEAN countries with lower duty. Most of the sourcing decisions of OEMs are with their head office, in case of Hino and Isuzu decisions are in Japan. In case of entry to OEM needs to approach from their head office.
- 8) Visit to **2-3 manufacturers of Auto component to understand market from their perspective**. Customer preference for quality, brand value, price. Also to find **possibility to join with allied products** through such manufacturer and

their distribution channel. For e.g. **Wheel rim manufacturers can approach Tyre manufacturers / tyre dealers and jointly they can approach market.**

- 9) Visit and conduct surveys Dealers and end users with frequent interval to understand requirement of final customer. For e.g. in case of wheel and Tyre end users are Trailer manufacturer and Truck owners/drivers, also approach 2-3 dealers/distributors of Auto components.
- 10) In ASEAN countries it is observed that market is dominated either by local production or Cheap Chinese import. In that case try to look for **Niche market opportunities** available. For e.g. **Mining application, Military application, Over load application, OTR (off the road) requirements, where tailor made product can be offered** with premium price.
- 11) Needs to visit International Exhibition related to targeted product in targeted country. For Automobile components BUS and Truck Show is one of the ideal exhibition where OEM's and Auto component manufacturers (Local as well as overseas), various dealers are participating and also visiting. If possible exhibit your product range to find potential dealer, Branding and advertise your product.
- 12) Check and visit for **Indian Manufacturers/Dealers association or Indian Embassy** in targeted countries which help to collect required data and overall understanding.
- 13) Review and conduct regular survey of market for various aspects of market like expectations of users, government regulations, change in duty and taxes, change in technology or new technological requirement and update marketing strategies accordingly.

After studying and collecting data by systematic way as mentioned above, one can decide further strategy to enter in following markets with appropriate pricing strategy:-

- a) OEM Market
- b) Spare Market
- c) Niche/ Special application Market

Above model or guidelines will definitely help the automobile component manufacturers to take successful entry in in new international markets.

7.5 Impact of Study

- This study will be helpful for Auto Component manufacturers as a guideline to explore various international markets along with countries studied in this research.
- Useful for International marketing students to understand global market, cultural differences and formulation of various marketing strategies depend upon market and Product.
- To Understand Government Foreign Trade Policies, Free Trade Agreements and Manufacturers can approach Government for addition/modification of duty structure in case of FTA with various countries.
- This data will help Indian Wheel and Tyre manufacturers to formulate their strategies for Thailand, Indonesia and Vietnam Market.

7.6 Future Scope for further study

- The present study is limited to Tyre and Wheel rims for commercial vehicles in 3 countries. This Study can be extended to other Auto components for commercial vehicle market and for various countries
- The study is conducted on Spare market, however there is big market called OEM (Original Equipment Manufacturer) market. Similar study can be undertaken for OEM market.
- Similar study can also be conducted for Passenger Cars or Light commercial vehicles for Spare as well as OEM market as this study is limited to Heavy Commercial Vehicle components.

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Appendix - A

Questionnaire

Research Topic: - “Study of Market Perception for select Indian Automobile Components in South East Asian Countries” (For PhD Studies)

Questionnaire No:-

Research Conducted by: - Mr. Santosh Rajaram Wagh

M. No: - +919823169796 E-Mail:- srwagh@yahoo.com

Guide Name: - Dr. Ashok V. Kulkarni. (Principal- Arts, Commerce & Science College Mandavgan, Dist. - Pune.)

Note: - The data from the questionnaire will be treated confidential & will be used for academic purpose only. Hence we request for your support & co-operation in sharing information.

Q 1. Name of the Company:-

Year of Establishment: -

Q. 2 Nature of Business:-

Q. 3 Annual Turn Over (USD/ Local Currency):-

2009 _____

2010 _____

2011 _____

2012 _____

2013 (Forecast) _____

Q.4 Product range for your business & Import pattern:-

Component	Brand/make	Country of Origin	Year	Qty. (Annum)	Approx. Sale (USD/Local Currency)	Application (commercial Vehicle/ Passenger Car/UV)
Tyre						
			2012			
			2011			
			2010			
			2012			
			2011			
			2010			
Wheel Rims						
			2012			
			2011			
			2010			
			2012			
			2011			
			2010			
Other Components (Pl. Specify name)						
			2012			
			2011			
			2010			
			2012			
			2011			
			2010			

Q.5 what is Total Spare/Retail Market Demand (Approx.) for Products you deal in?-

Component	Year	Total Qty	Domestic Production	Imports from China	Imports from India	Other Country Imports
Tyre						
Commercial Vehicle	2012					
	2011					
	2010					
Passenger cars/UV	2012					
	2011					
	2010					
Wheel Rims						
Commercial Vehicle	2012					
	2011					
	2010					
Passenger cars/UV	2012					
	2011					
	2010					
Other Components (Pl. Specify name)						
	2012					
	2011					
	2010					
	2012					
	2011					
	2010					

Q.6 what is Total Spare/Retail Market Demand (Approx.) for Products you deal in (Category wise):-

Component	Total Qty.	Domestic Production	Imports from China	Imports from India	Other Country Imports
Tyre (Commercial Vehicle)					
Radial Tyres					
Bias Tyres					
Tubetype Tyres					
Tubeless Tyres					
Wheel Rims (Commercial Vehicle)					
Tubetype Wheels					
Tubeless Wheels					
Other Components (Pl. Mention details of component)					

Q.7 What is Total Spare Market Demand (Approx.) for Products you deal in (Size wise):-

Component	Total Qty	Domestic Production	Imports from China	Imports from India	Other Country Imports
Tyre (Commercial Vehicle)					
Wheel Rims (Commercial Vehicle)					
Other Components (Pl. Mention details of component)					

Q.8 Top 3 brands/make of Products you deal in & Brief reason for this position?-

Component	Brand No 1	Share of Business (approx.)	Brand No 2	Share of Business (approx.)	Brand No 3	Share of Business (approx.)
Tyre						
Commercial Vehicle						
Reason for this position						
passenger cars/UV						
Reason for this position						
Wheel Rims						
Commercial Vehicle						
Reason for this position						
Other Components (Pl. Mention details of component)						
Reason for this position						
Reason for this position						

Q.9 Top 3 Market Leaders in different Vehicle Segment:-

Commercial Vehicle	Brand No 1	Share of Business (approx.)	Brand No 2	Share of Business (approx.)	Brand No 3	Share of Business (approx.)
Commercial Vehicle						
Reason for this position						
Passenger cars						
Reason for this position						
Utility vehicle/ Pick-up						
Reason for this position						

Q.10. Rank following Characteristics on scale of 1-10 (10 for more importance & 1 for least Important)

Component	Price	Quality	Brand name	Warranty/ Service	Credit terms	Availability in market	Origin Country
Tyre							
Commercial Vehicle							
Wheel Rims							
Commercial Vehicle							
Other Components (Pl. Mention details of component)							

Q.11. Kindly comment on perception for manufacturing country w.r.t. following parameters.

Country of Origin	Price	Quality	Brand name	Warranty/ Service	Availability in Market	Life of Product	Penetration Potential
Tyre							
Local							
China							
India							
Other Country							
Wheel Rim							
Local							
China							
India							
Other Country							
Other Component	Name of Component :-						
Local							
China							
India							
Other Country							

Q. 12. Kindly comment on Import Duty structure w.r.t. Country of Origin

Country of Origin	Tyre	Wheel Rims	Other Component (Pl. Specify Name)
	Duty Structure	Duty Structure	Duty Structure
China			
India			
Other Country (Pl. Specify Country)			

Q.13 Are you aware about Present Free trade Agreement between India & ASEAN Countries. YES/ NO If Yes Kindly comment on advantages/ Duty benefits/ Disadvantages due to same.

Tyre:-

Wheel Rim:-

Other Component:-

Q.14 Kindly comment on Introduction of new technology/ new development in market w.r.t. below mentioned Auto Components & Future trend.

Tyre:-

Wheel Rim:-

Other Component :- (Specify name :-)

Q.15 Kindly comment on Future Potential & Improvement suggestions for Following Indian Auto Components in your country market.

Tyre:-

Wheel Rim:-

Other Component :- (Specify name :-)

APPENDIX –B

Respondent contacted in various countries for a collection of Data

THAILAND MARKET

Sr. No.	Name of the company	Tyre Business	Country of origin	Brand	Qty. (Units)	Wheel Business	Country of origin	Brand	Qty. (Units)
R1	Chavakit	Tyres	Taiwan	Maxis	12,000	Wheels	Taiwan	China made	12,000
	Chavakit	Tyres	India	Bxt					
R2	Well Interparts	Tyres	Thailand	Bridgestone	1,80,000	Wheels	China		24,000
R3	Bridgestone	Tyres	Thailand	Bridgestone	2,40,000	Wheels	India	Hayes Lemmerz	2,500
		Bridgestone Qty includes sale from Well Interparts				Wheels	Japan	TOPY	1,000
R4	Michelin Tires	Tyres	Thailand	Michelin	2,50,000	Wheels	India	Hayes Lemmerz	20,000
						Wheels	China	Maxion	5,000
R5	Fast forward ergizing co. ltd.					Wheels	India	Hayes Lemmerz	5,000
R6	Eurotyre	Tyres	Malaysia	Continental	6,000	Wheels	China	China made	2,000
R7	Toyo Tyres	Tyres	Japan	Toyo	10,000	Wheels	Japan	Toyo	1,000
				Total	5,18,000			Total	70,000

Respondent contacted in various countries for a collection of Data

VIETNAM MARKET

236

Sr. No.	Name of the company	Tyre Business	Country of origin	Brand	Qty. (Units)	Wheel Business	Country of origin	Brand	Qty. (Units)
R1	Van vu co. ltd.	Tyres	India	MRF	25,000	Wheels	China	China Made	5,000
R2	Cong ty TNHH TM-DV-SX HY THINH					Wheels	China/Vietnam	Local	10,000
R3	Michelin Tires	Tyres	Thailand	Michelin	50,000				
R4	Kim long co. ltd.	Tyres	Thailand	Michelin	30,000				
	Kim long sales included in Michelin sales								
R5	Bridgestone	Tyres	Thailand	Bridgestone	60,000	Wheels	India	Hayes Lemmerz	1,000
R6	Minh long co. ltd.	Tyres	Thailand	Bridgestone	30,000	Wheels	China/Vietnam	Local	10,000
	Minh Long Sale is included in Bridgestone sales								
R7	Barbourne Trading	Tyres	India	J.K.	10,000				
				Total	1,40,000			Total	26,000

Respondent contacted in various countries for a collection of Data

INDONESIA MARKET

237

Sr. No.	Name of the company	Tyre Business	Country of origin	Brand	Qty. (Units)	Wheel Business	Country of origin	Brand	Qty. (Units)
R1	P.T. Enrich Solutions	Tyres	India	MRF	25,000				
R2	P.T. Indoparta Nusantara					Wheels	China	China made/	15,000
R3	Jaya inter motors	Tyres	China	China made	15,000	Wheels	China	China made	15,000
R4	Bridgestone	Tyres	Indonesia	Bridgestone	60,000	Wheels	China/ India	Hayes Lemmerz	2,000
R5	Banama	Tyres	China/ India	China Made	5,000				
R6	Auto Sarana Niaga					Wheels	India	Hayes Lemmerz	5,000
R7	Chitra paratama					Wheels	China/ Turkey	China made/ Jantsa	10,000
				Total	1,05,000			Total	47,000

APPENDIX-C

Free Trade Agreements Signed by India with various countries

S. No	Title
1.	Duty Free Tariff Preference Scheme for Least Developed Countries Rules, 2008
2.	India Afghanistan Free Trade Agreement
3.	India Bangladesh Free Trade Agreement
4.	India Bhutan Free Trade Agreement
5.	India Ceylon Free Trade Agreement
6.	India Chile Free Trade Agreement India Chile Free Trade Agreement Rules of Origin
7.	India Korea Free Trade Agreement Exempts certain goods from whole of the duty of customs when imported into India from the Republic of Korea
8.	India Maldives Free Trade Agreement
9.	India Myanmar Free Trade Agreement
10.	India Nepal Free Trade Agreement
11.	India Pakistan Free Trade Agreement
12.	India Singapore Economic Cooperation (Foreign Trade Agreement) India-Singapore Trade Agreement (Safeguard Measures) Rules, 2009
13.	India Sri Lanka Free Trade Agreement
14.	SAFTA Trade Agreement
15.	India Free Trade Agreement with Member MERCOSUR States Custom Duty exemption to specified goods when imported to India from MERCOSUR States
16.	Exemption of Customs duty on certain goods when imported into India from the Malaysia, Singapore & Thailand

Other agreements already concluded:-

S. No	Title
1.	Agreement of Cooperation with Nepal to Control Unauthorized Trade
2.	Agreement on Economic Cooperation between India and Finland
3.	Asia Pacific Trade Agreement APTA
4.	Comprehensive Economic Cooperation Agreement between India and Malaysia
5.	Global System of Trade Preferences GSTP
6.	India Chile PTA
7.	India ASEAN Agreements
8.	India Japan CEPA
9.	India Korea CEPA
10.	India MERCOSUR PTA
11.	India Nepal Trade Treaty
12.	India Sri Lanka FTA
13.	SAARC Agreement on Trade in Services SATIS
14.	Treaty of Transit between India and Nepal