

MAKE IN INDIA INITIATIVE: A STUDY FOR SUSTAINABLE DEVELOPMENT



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in
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(Ferhat Cagri ARAS)

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Dedicated to my wife

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Abstract

This thesis deals with the Make in India program, which is a sustainable development program, and its scope, sectoral advances, Foreign Direct Investment (FDI) programs' investments, and innovations in infrastructure work. This thesis evaluates the state of India's sustainable economic development programs. Continuity of India's development programs and then, within the scope of India's bilateral country relations, were separated and analysed in the field of investment and technology transfers. In this context, great importance has been attached to the international dimension, in which India's investment quests are contextualized in bilateral relations with individual countries. What further analysis makes clear is that the international arena offers significant opportunities, but at the same time, realizing more investment will further develop this program.

The first part starts with the explanation of the concept of sustainable economic development. Afterward, modern and historical theories were examined, and how the international environment in the past directed these theories and trends was reviewed. After that, how past works guided today's politics were analysed. Historically, the fate of global development history reflected the destiny of global economies. As a matter of fact, it brings along deviation from development programs after each crisis period. In this case, it also reveals the importance of countries' development policies. Theories of development are blended with regional theories, and the evaluation of innovation programs in this context is discussed. This situation enables innovation programs in developing countries to make programs to eliminate regional inequalities. Finally, in this section, India's five-year development programs from 1947 to the present are discussed within the framework of the conjuncture of the period. In this way, thanks to the values and experiences from the past, the regulations and the implementation of the Make in India program were explained from a historical perspective.

In this context, the Make in India program, which is India's current innovation program, is examined in depth in the second part. The first announcement of the Make in India program, what kind of a campaign it followed, and its benefits from historical traces were discussed. Then, by explaining what kind of development program the Make in India program is, sectors within the Make in India program's scope were examined. The current situation of these sectors has been considered and whether progress has been made. Afterwards, all infrastructure works and innovations within

the scope of the Make in India program were examined, and the integration studies of these developments were examined. Under the Make in India program, the induction method will analyse FDI policies and sectoral incentives of these policies. With case studies and questionnaires, these sections' fine details were examined, and inferences were made. While the various challenges are specific to each sector, this chapter also identifies various systematic problems such as insufficient supply, pervasive demand, and import propensity.

In the third part, China's sustainable development plans and programs are examined and analysed comparatively with the Make in India program. In this context, firstly, China's past development programs and projects were explored in historical longitude, and the historical traces and theories of China's development programs today were determined. Afterwards, China's current innovation programs were explained, and long-term missions were discussed from “today's conjuncture”. Later, these development programs of China were analysed compared to India's Make in India program, and the pros and cons of both programs were discussed. Besides, the past development programs and five-year development plans in both countries were discussed. These programs' data and their reflections to the present were mutually examined and their considerations to the present day. In this context, what kind of programs are being tried to overcome the regional underdevelopment have been studied, and the medium- and long-term development programs have been analysed comparatively. As a result of all these analyses and inferences, both countries' global policies have been analysed comparatively.

In the last part, inferences and analyses are made for the Make in India program. In this context, deductions are made for India's sustainable development program to become more functional and to be more expandable in the long term. In this context, the Make in India program's road map was examined comparatively in the light of current theories, and the consistency of the future program and goals was evaluated. The scope and boundaries of the Make in India program were determined, and inferences were made. In the light of these evaluations, the concept of creative destruction was explained, and speculations were made by demonstrating the possible dangers of creative destruction to the Make in India program. The new plans, programs, missions, and road maps within the Make in India program's scope in the covid19 period and afterward were analysed, and the future of the Make in India program was widely analysed.

Looking at the whole world from South Asia, India's Make in India program can be considered as a way of evaluating the existing potential for a better society. When this is also viewed with China's current management philosophy, the concept of development takes on a different concept. However, the Make in India program's complex interdependence strategy with its internal sectors is essential for the further development of this plan. Still, India has a unified development policy, and this program is strongly supported by political will. This situation will ultimately affect the destiny of the region as India is one of the world's most extraordinary powers.



List of Abbreviations

ACMA	- Automotive Component Manufacturers Association
AEZ	- Agri Export Zone
AI	- Artificial Intelligence
AIIB	- Asian Infrastructure and Investment Bank
AKIC	- Amritsar Kolkata Industrial Corridor
AMRUT	- Atal Mission for Rejuvenation and urban Transformation
APMC	- Agricultural Produce Market Committees
ASEAN	- Association of Southeast Asian Nations
ATVM	- Automatic Ticket Vending Machines
AYUSH	- Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy
BMIC	- Bengaluru Mumbai Industrial Corridor
BoP	- Balance of Payment
BPM	- Business Process Management
BPO	- Business Process Outsourcing
BRI	- Belt and Road Initiative
CBIC	- Chennai Bengaluru Industrial Corridor
CBM	- Coal Bed Methane
CEIA	- Cumulative Environmental Impact Assessments
CEZ	- Coastal Economic Zones
CNSA	- National Space Administration of China
COO	- Country of Origin
CPHHEO	- Central Public Health and Environmental Engineering Organization
DAP	- Defence Acquisition Procedure
DDUGJY	- Deendayal Upadhyaya Gram Jyoti Yojana
DEITY	- Department of Electronics & Information Technology
DGT	- Directorate General of Training
DIPP	- Department of Industrial Policy and Promotion
DMIC	- Delhi – Mumbai Industrial Corridor
DMF	- District Mineral Foundation
DTH	- Direct to Home
ECEC	- East Coast Economic Corridor
FAME	- Faster Adaptation and Manufacturing of Electric Vehicles

FDI - Foreign Direct Investment
FICCI - Federation of Indian Chambers of Commerce and Industry
FIFP - Foreign Investment Facilitation Portal
FISSAI - Food Safety and Standards Authority of India
FME - Food Processing Enterprises
GDP – Gross Domestic Product
GUTS - Green Urban Transport Scheme
HELP - Hydrocarbon Exploration & Licencing Policy
HRIDAY - Heritage City Development and Augmentation Yojana
IBEF - India Brand Equity Foundation
ICRIER - Indian Council for Research on International Economic Relations
IDC – Industrial Development Corporation
IES - International Energy Agency
ILO - International Labour Organization
INCOSPAR - Indian National Committee for Space Research
IoT – Internet of Things
IPR – Intellectual Property Rights
IR - Indian Railways
ISRO - India Space and Research Organization
IT – Information Technology
JNNURM - Jawaharlal Nehru National Urban Renewal Mission
LBI - Logistics Performance Index
MDG - Millennium Development Goal
MEA - Ministry of External Affairs
MEIS - Merchandise Export from India Scheme
MiC – Made in China
MiI – Make in India
MIIT - Ministry of Industry and Information Technology
MIUI – MI User Interface
MMDR - Mines and Minerals Development and Regulation
MoRTH - Ministry of Road Transport and Highway
MOUD - Ministry of Urban Authority
MSDE - Ministry of Skill Development and Entrepreneurship
MSME - Micro, Small and Medium Enterprises

NAFC - North Atlantic Financial Crisis
NATRIP - National Automotive Testing and R&D Infrastructure Project
NDHM - National Digital Health Mission
NELP - New Exploration Licencing Policy
NEMMP - National Electric Mobility Mission Plan
NEP – National Education Policy
NGO – Non-Governmental Organization
NITI - National Institution for Transforming India
NMET - National Mineral Exploration Trust
NPE - National Policy on Electronics
NRI - Non-Resident Indian
NSDA - National Skill Development Agency
NSDC - National Skill Development Corporation
OALP - Open Acreage Licensing Policy
OCI - Overseas Citizens of India
OECD - Organisation for Economic Co-operation and Development
OPC – Open Coastal City
ORF - Observer Research Foundation
PIO - Persons of Indian Origin
PM – Prime Minister
PMA - Preferential Market Access
PMJAY - Pradhan Mantri Jan Arogya Yojana
PPDS - Pharmaceuticals Promotion Development Scheme
PPP - Public-Private Partnership
PPP - Pharmaceuticals Purchase Policy
PRASAD - Pilgrimage Rejuvenation and Spiritual Augmentation Drive
PRS - Passenger Reservation System
PSU - Public Sector Undertaking
R&D – Research & Development
RCEP - Regional Comprehensive Economic Partnership
RGO - Renewable Power Obligation
RIS – Research and Information System
RPO - Solar Renewable Power Obligation

SASTIND - State Administration for Science, Technology and National Defence
Industry Administration
SDG – Sustainable Development Goal
SOP - Standard Operation Procedure
SRF - Silk Road Fund
SWOT – Strength Weakness Opportunity Threat
TICL - Tata Investment Corporation Limited
UDAN - Ude Desh ka Aam Naagrik
UMPP - Ultra-Mega Power Projects
WCED - World Commission on Environment and Development





Introduction:

The Importance of Make in India Initiative for Sustainable Economic Development in India

Since the immemorial time, people are continually working to achieve a better life. In field occupation, scientists/philosophers are always reasoning how to use unlimited human wants more effectively with scarce resources. In this process, the idea that economic growth should be ensured by increasing the countries' production capacities and the progress should be made in both social and economic direction. At this point, the importance of the concept of development emerges.

After the Second World War, the growth and development policies were continuously applied. In the following periods, because of the increase in poverty rates in developing countries and the increase in economic and social damages by developed countries, the concept of development has changed in various subjects. As a result, people started to research growth, sustainable development issues. These results were made along the way with the development of solutions.

In all these advances, the studies for India's economic development and growth have been of great importance from independence till date. In this context, India has given great importance to development policies. It has put into practice the various development plans periodically considering the country's political and economic situation as well as the effects of political and economic conditions in the international arena.

In India, Planning Commission was established for development policies, improving the living standards of the people by using the resources of the country efficiently, increasing the production, creating employment opportunities for everyone, growing population with all these opportunities in necessary fields and carrying out economic growth in a planned way. In this context, the five-year plans, which began in 1951 in India, continued until the Make in India Initiative Program. The five-year plans were interrupted at various time intervals as a result of measures taken by the states following the expansion of the country's population three times.

Taking into consideration of all the historical background and the social, economic and political situation of the country; the Modi government, which took over officially in September 2014, announced that it had initiated a new economic development plan and innovation actions that will cover the whole country and bear out the country develop rapidly in all work areas.

The Make in India Initiative program has two main objectives for contributing to the enterprise's development: Increasing the overall level of production in India and encouraging foreign investors with Foreign Direct Investment to invest in the country.

As a result of these goals, both the country and infrastructure's development are aimed at achieving progress in all development goals. The main reason for adopting this program as a milestone is the lack of such a comprehensive development policy since the country's independence. This program not only has a development program in the field of industry and high technology transfer; the new campaigns to be established by the government in the following periods and steps have been taken to improve living standards. In contrast to the five-year development plans made in the past, the country's development policies have been transformed into two-step and more systematic structure with long-term and short-term policies in India.

Under this program, the government first dismissed the Planning Commission to provide a new perspective on the development, promote investment in the country, and named the National Institution for Transforming India (NITI) Aayog to make development policies more effective. NITI Aayog, a think-tank organisation of the Government, actually represents a traditional and nationalist development structure from the past to the present. Their initiatives include fifteen years of road maps and seven-year vision, strategy and action plans, such as Digital India, Atal Innovation Mission, Agriculture Reform Models, Swachh Bharat Abhiyan, and others. In this study, the structure of NITI Aayog will be examined while explaining the contents of Make in India program.

The Make in India program was first launched on a website (www.makeinindia.com), and the campaigns were drawn to the government and intergovernmental level, led by NITI Aayog. In this context, this program has three basic policies: New Initiatives, Foreign Direct Investment (FDI) and Intellectual Property Rights. With New Initiatives, the main goal was to realise the India's development policies more innovatively and implement the new infrastructure, New Process and New Sectors more actively. As a matter of fact, all the programs announced until today are analysed within this framework. The second one is FDI. Foreign Direct Investment is a form of long-term investment in which an investor controls or controls an entity's management. In Foreign Direct Investment, it is essential that the investor has a share of 10% or more in the entity's capital or has a say in the management. Foreign direct investment does not refer to a real investment in a portfolio, stock or an investment per year. To give an example of direct foreign investment, it is defined as a direct foreign capital investment to establish a production facility in countries outside of its headquarters or to purchase existing production facilities alone or with a local

partner in order to move production beyond the borders of the country where it is established. Since the start of the Make in India program, the Foreign Direct Investment (FDI) increased by 48% in the first period. In the following sections, detailed reports related to this subject will be examined. And lastly, Intellectual Property Facts, adopted in 2016, are described on the program website as follows:

“The Policy was formulated after intensive consultation with nearly 300 stakeholders and individuals by an IPR Think Tank, as well as 31 departments of the Government of India and five foreign Governments. It aims to spur creativity and stimulate innovation and ensure effective IPR protection in India. The Vision statement envisages an India where IPR stimulates creativity and innovation for the benefit of all; an India where intellectual property promotes advancement in science and technology, arts and culture, traditional knowledge and biodiversity resources; an India where knowledge is the main driver of development, and knowledge owned is transformed into the knowledge shared.”¹

Within the scope of these three main principles, both the country's financial statement's improvement by making progress in Sustainable Development Goals (SDGs) values is being eradicated, and medium and high technology transfer is being prepared for FDI in areas where production is inadequate. Within the whole program's scope, a “seven-term plan” was prepared by preparing the ground for the policies that could solve the unemployment and infrastructure problems. At the end of this period, the Government is aimed to increase living standards and contribute to Make in India program with new projects in the fields of security.

There is a consensus among academicians that there had been major negative impacts of development on the environment and on existing social structures². In many developing countries, forests, water systems and natural beauties are destroyed. However, in developing cities, air pollution, irregular transportation systems and infrastructure systems suffer from these reasons. The consensus around this idea and working definition could be attributed to the importance of sustainable development

¹ <http://www.makeinindia.com/policy/intellectual-property-facts> Last Access: 13.02.20221

² Jonathan M. Harris, “Basic Principles of Sustainable Development”, *Global Development and Environment Institute Working Paper*, No:00-04, Medford, USA, June 2000, p.26.

programs preserving nature, which could be costly for developing countries' governments. A strategy of obstructing the front of these extinctions may be a good precaution. The World Commission on Environment and Development (WCED)'s 'Our Common Future' report in 1987 formulated the definition of sustainable development, highlighted the problem between environment and development, and presented the following common consensus:

“Sustainable development is the development process in which the human needs of the present generation can be met without taking away the possibilities of meeting the human needs of future generations.”³

According to Holmberg and Sandbrook, sustainable development has been generally accepted in three dimensions since the day it was discussed and used as a concept: economic, environmental and social. An economically sustainable system must be able to produce goods and services continuously, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances which damage agricultural or industrial production; an environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes⁴. Lastly, a socially sustainable system must achieve distributional equity, adequate provision of social services, including health and education, gender equity, and political accountability and participation⁵.

By virtue of burgeoning the size of the sustainable economic development literature and unit of analysis in India, the following thesis examines and commentates on the initiative and sustainable development strategies currently being undertaken by the Government of India. While Make in India Initiative's efficiency, achieving the objectives of SDGs and public dissemination of the program are dealt with in chapter 5, the thesis primarily concerns itself with strategies with other countries' innovation

³ *Report of the World Commission on Environment and Development: Our Common Future*, Stockholm: Cambridge University Press, 1987, p.51.

⁴ Johan Holmberg and Richard Sandbrook, “Sustainable Development: What Is to Be Done? Making Development Sustainable: Redefining Institutions, Policy, and Economics”, *International Institute for Environment and Development*, Washington DC: Island Press, 1992, p.21.

⁵ *Ibid.*

programs and draw the lesson from program's impact. The research examines challenges for innovation and sustainable economic development. While some non-traditional aspects of sustainable economic development and related challenges are highlighted throughout the following analysis, considerable attention will be devoted to South-Asian geography and the political environment. However, this thesis seeks to go further than previous work by attracting investment and support from other countries for this program to achieve India's foreign policy goals and contextualising the sustainable economic development of the country with investment and support to Make in India initiative program within India's historical relations with other countries.

The research is essentially trying to find out:

Q1: How the Make in India Initiative Program contributes more efficiently to sustainable economic development in India?

The research aims to test the general pattern proposed in the preceding question: *There is a relationship between India's economic policies and development of Make in India initiative program.* It also seeks to analyse the nature of the relationship. Of particular emphasis on the research, topic is the emergence of strategic problems in India's economic development policy. Such dilemmas indicate that India is trying to balance pressing economic policies' success imperatives with reducing unemployment and increasing investment with incentive policies. However, it is not clear how well India is coping with the strategic problems arising about the program. From this assessment comes the following hypothesis:

H1: *The Make in India Initiative program will help India's sustainable economic development; increase the workforce quality, and amount; reduce the negative effects of anti-competitive practices in India.*

Applying the theoretical framework explained in the second chapter to these research questions results in diversified hypotheses that will be tested in the proposed research. The first chapter's research sub-questions are:

Q1a: What was the theoretical framework on sustainable economic development in India?

Q1b: What are the major regional development policies in the world and what factors have these theories produced in developing countries?

After exploring sustainable economic development and regional development theories at the global scale, in the first chapter, the second chapter explores this question in some detail by considering present and future development policies in India in the major manufacturing sectors with Make in India. This chapter will seek to address the following hypothesis:

H2: If India maintains its current economic growth level, the country will need larger sustainable development policies.

After evaluating India's past development plans, the research will seek to explore future sustainable development policies. More specifically, the second chapter will explore another research sub-question:

Q2: What is the Make in India innovation program?

The issues covered in this chapter will be wide and varied. Also, all economic policies, campaigns, incentives and marketing activities at government levels created for this program will be discussed in this section. The trends of these attractions will ultimately affect India's sustainable economic development policy. Another question that will be considered is:

Q3: What exactly is the country's sustainable economic development policies?

Q4: How consistent are with Make in India Initiative program?

Critical to the second chapter's endeavour is testing the hypothesis that:

H3: A thorough analysis of the Make in India Program will provide an understanding of the areas in which sustainable economic policies are planned and the objectives of sustainable economic policies.

The final and crucial arena in a sustainable economic development dilemma in the realm of a global analysis. The third section will be a substantial part of the thesis and compare India's Make in India Initiative program to China's economic development programs and innovation policies. The research question being explored here is:

Q5: What are China's development policies and how does this program make Make in India program more functional?

Chapter three will evaluate China and China's initiative programs that have implemented systematic development policies. Many issues about innovation policies will be covered in this section; however, a central theme will further improve the "Make in India" Initiative program. The subsequent hypotheses being tested are:

H4: *Examining China's development policies will contribute to the Make in India Initiative program.*

A more primary question will also be aforesought in the last chapter regarding the role of review in determining the major regulation policies and to what degree this affects India's pursuit of the sustainable economic development program targets. More compactly:

Q6: To what degree does India's development policies affect India's adequate progress in development?

Q7: To what extent can the Make in India initiative program benefit from the practices that positively impact the programs of developing countries?

These research questions lead to the final major hypothesis put to the test:

H5: *Comparing the Make in India initiative program with the development programs of China will make it more functional and efficient.*

This research has to be contextualised within the current literary landscape. On the whole, compared to the exertions published in the world, India's goal of sustainable

economic development has been abandoned. This is more evident when reports on the United Nations' sustainable economic development goals and when academically insufficient infrastructure is taken into account. Also, in Amitav Ghosh's book "Making of New India" (2019), chapter two is devoted to these concerns, however, the level of detail and analysis greatly favours the United Nations. Nevertheless, the academic literature's impression remains that the Make in India program being the political decision-making mechanisms in India are affected by the political crises with other countries for investment. At first glance, this may seem normal as in every country logical enormous developing countries. However, India's political crises with its neighbours in the region have contributed negatively to the investment ratings of international institutions. The economic fluctuations, especially after the politicians' extremist rhetoric during the election periods, are good examples of this situation. As a matter of fact, some of China's problems have brought negative processes leading to collapse in the future. This situation should be investigated and analysed well to increase the Make in India program's efficiency.

The first attempt to establish innovation and development policies research exclusively on India came with RIS (Research and Information System for Developing Countries) Discussion Papers. RIS's November 2016 monograph on "*India as part of the Infrastructure Development, R&D, and Sectoral Incentives in Make in India Series*" within India's sustainable economic development studies and their search for development and innovation in India and overseas. However, the author is profoundly alive of the issues in need of further study and has set down other researchers' pathway. In this matter, the RIS published in 2018 a detailed analysis of "*India's sustainable development road map, possible future scenarios, and environmental issues*"; it also evaluated the innovation and importance of higher technology production issues in significant detail.⁶ One of the well-known books "*Indian Economic Since Independence*"⁷, which is edited by Umi Kapila, details the events and issues from 1947 to 2019. Shankar Acharya and Rakesh Mohan in their edited book "*India's Economy; Performance and Challenges*"⁸ explain detailed analysis of India's sustainable development policies from past to present.

⁶ For policy briefs: <https://www.ris.org.in/policy-briefs> (Last Access: 25/11/2019)

⁷ Umi Kapila, *Indian Economy since Independence*, New Delhi: Academic Foundation Publishing, 2019.

⁸ Shankar Acharya and Rakesh Mohan, Ed., *India's Economy, Performance and Challenges*, New Delhi: Oxford University Press, 2010.

However, in these publications, little consideration is given to the political dimension of Foreign Direct Investment (FDI) and Campaigns for investments. Indeed, the authors' research brought to the surface only a few publications that bridge the worlds of sustainable economic development and politics in India's case. In this respect, six publications and other paper series do an admirable job of integrating innovation policies and politics, although both contain limitations from the government side. The first is co-authored by Sanjay Kumar & Tariq Sayeed & Masroor Ahmad Beg, entitled "*Make in India Policies Issues and Challenges*"⁹. However, the scope of the research is primarily limited to government mission plans and regional politics. It becomes clear through the book that a detailed history of the evolution in policies from past to present is essential to understand today's political facts. The book does not allude to the historical and political issues; there is little analytical depth and, detail.

The second publication is co-authored by M.K. Singh and R. Ranjan, "*Make in India Initiatives and Challenges*"¹⁰ released in 2016. It covers India's innovation plans with government policies and details several political dilemmas such as crisis diplomacy and means of stimulus. This book is connected to the mentioned publications in many ways: it does cover development programs in some detail. Still, it does lack a sense of theoretical to the issues being explained. An appreciation of this theory is critical to not only explaining how India has arrived at this point but offers some insights into how progress can be made until this time. Sunil Kumar Gupta's constructive work on Make in India includes a wide range of period in his book "*Make in India; A Compendium of Business Opportunities & Laws in India*"¹¹ and makes it possible to see and evaluate all the shames that start with Make in India program. One of the very essential work on Make in India is done by Mahendra Panwar, "*Make in India, Opportunities and Challenges*"¹² and one additional volume is written as "*Make in India; Destination 'Made in India'*"¹³ edited by Rakesh Kumar Gupta and Geeta Bansal. Lastly, Shobna Jain in her book "*Make in India; Needs and Importance*"¹⁴

⁹ Masroor Ahmad Beg, Sanjay Kumar and Tariq Sayeed, Ed., *Make in India Policies Issues and Challenges*, New Delhi: Bharti Publishers, 2016.

¹⁰ M.K. Singh and R. Ranjan, *Make in India, Initiatives and Challenges*, New Delhi: Prashant Publishing, 2015.

¹¹ Sunil Kumar Gupta, *Make in India, A Compendium of Business Opportunities & Laws in India*, New Delhi: Parragon Publishing, 2018.

¹² Mahendra Panwar, *Make in India, Opportunities and Challenges*, New Delhi: Prajwal Books, 2018.

¹³ Rakesh Kumar Gupta and Geeta Bansal, Ed., *Make in India, Destination 'Made in India'*, New Delhi: Bharti Publications, 2017.

¹⁴ Shobha Jain, *Make in India; Needs and Importance*, New Delhi: Kunal Books, 2017.

published in 2017, is a book highlighting the importance of the Make in India program for development tools. Although many of the essays in this publication were originally presented at a RIS organised conference in 2016, they have been updated and revised to include a broader range and depth of topics. Also, Anand Sagar's article "*Make in India Program – An Analytical Review*"¹⁵, Bharata Bhusan Sahoo's article "*Make in India: Impact on Indian Economy*"¹⁶ and Raghuram Rajan's article on "*Make in India; Largely for India*" are critical in understanding the details of the Make in India program and determining the focal points. So, while these books are essential reading for an understanding of Make in India dilemmas, this research seeks to contemporise some of the data and give a greater historical context to the dilemmas offered.

The thesis also seeks to extend the scope of current initiative program analysis and its historical context to countries previously overlooked and regions under-studied, including China. It is at the crossroads of India's sustainable economic development policies, domestic and international investments and Intellectual Property Facts with the Make in India program that the current thesis aims to place itself. By acquiring empirical information from the Indian government official websites, think tanks, institutes, and international organisations this research wishes to bring up to date the condition and principal challenges of the Indian development sector, especially, about manufacturing. Furthermore, this piece seeks to combine previously overlooked sectors such as industrial corridors, defence industry's manufacturing, smart cities and renewable energy sources into an exhaustive survey of the Make in India program and its challenges.

Within these inquiry, Michael Bell, Kochhar Kalpana and Hoe Khor's book "*China at the Threshold of a Market Economy*"¹⁷ is important for understanding China's development programs from the past to the present. However, it should be noted that this book does not include new policies and innovation programs while analysing and making inferences. In addition, Chunlai Chen's "*The Impact of Coastal FDI on Inland Economic Growth in China*"¹⁸, Chapter-14 contains the FDI investments

¹⁵ Anand Sagar, "Make in India Program – An Analytical Review", *International Journal of Management and Applied Science*, Vol.2, No.6, June 2016, pp.134-136.

¹⁶ Bharata Bhusan Sahoo, "Make in India: Impact on Indian Economy", *International Journal of Research Cultural Society*, Vol.2, No.3, May 2018, pp.483-489.

¹⁷ Michael Bell, Kochhar Kalpana and Hoe Khor, *China at the Threshold of a Market Economy*, Washington DC: International Monetary Fund Publishing, 1993.

¹⁸ Chunlai Chen, "The Impact of Coastal FDI on Inland Economic Growth in China", *China's Domestic Transformation in a Global Context*, ed. Ligang Song, Ross Garnaut, Cai Fang and Lauren Johnston, Acton, Australia: ANU Press, 2015, pp.339-360.

required for these programs in China is important for understanding how the investments and resources required for the programs are provided. While Kiziltan analyses China's new policies within the context of the world economic map of China's development programs in the "*Tek Kutuplu Bir Dunyada Cin Halk Cumhuriyeti'nin Super Guc Olabilirligi (The People's Republic of China Can Become a Superpower in a Unipolar World)*"¹⁹, Zheng Yisheng evaluated the areas where China's development programs have succeeded and new moves in areas where they have failed in his book of "*Poverty Reduction and Sustainable Development in Rural China*"²⁰. In addition to this literature, it is important to compare India's development policies with the development policies in order to analyse better and compare both programs.

The thesis will allocate most of Make in India and China's development programs by analysing. This will lead the analysis to cover areas highlighted by other authors, although from a new perspective and updated for contemporary developments. It will also explore China's economic development programs previously not covered in any considerable depth. By adopting a historical approach to India's bilateral relations with China, the thesis hopes to contextualise current attempts to pursue FDI. This route will shed light on certain bilateral issues' roots and highlight certain continuities within contemporary relations. The analysis will also illustrate shifts in bilateral relations over time and whether these changes have positively, or adversely affected India's attempt to invest within these countries.

Although, these comparisons are mentioned in two important works, the main deficiencies in the literature were that they were not up to date in both works and analysed the growth rates of both countries rather than the development policies. The first book published in this topic is "*China, India and the International Economic Order*"²¹ edited by Mutgucumaraswamy Sornarajah and Jiangyu Wang. The second one is "*India, China and Globalization*"²² written by Piya Mataney. There is also an article, "*Recent Economic Reforms in China and India*"²³, written by Bhalla. This

¹⁹ Alaattin Kiziltan, "Tek Kutuplu Bir Dunyada Cin Halk Cumhuriyeti'nin Super Guc Olabilirligi (The People's Republic of China Can Become a Superpower in a Unipolar World)", *Cumhuriyet University Ibf Journal*, Sivas, Turkey: Cumhuriyet University Press, 2004, pp.40-61.

²⁰ Zheng Yisheng, *Poverty Reduction and Sustainable Development in Rural China*, Boston: Brill Press, 2011.

²¹ Muthucumaraswamy Sornarajah and Jiangyu Wang, ed., *China, India and the International Economic Order*, New York: Cambridge University Press, 2010.

²² Piya Mataney, *India, China and Globalization*, London: Palgrave Macmillan Press, 2007.

²³ A.S. Bhalla, "Recent Economic Reforms in China and India", *Asian Survey*, Vol35, No.6, 1995, pp.555-572.

section's analyses are generally important to fill these gaps in terms of better comparative analysis of the Make in India program and efficient comparison of sustainable development policies.

India's bilateral relations with China, there has been considerable information published to date. In these cases, the thesis has delved among quite deeply into historical analysis to contextualise the tidal forces affecting bilateral relations. This thesis hopes to be as wide as possible in India's development policies' diversity and complexity. Before assessing the theoretical framework, the following section will discuss the methodology undertaken.

Research Methodology

Methodology

When researching a topic in social sciences, the most fundamental issue to be addressed is methodology. The usage of the methods directly affects the course of the research. The best way to investigate the research problem and research questions is to mix experimental, and positivist approaches. However, an important part of the thesis is on the historical comparison of economic development policies between India and China, and what kind of contributions these comparisons can contribute to Make in India program. This perspective pushed to interpret through the concepts of causality and contextualisation rather than historicism in the thesis.

Given the relatively evolving nature of sustainable development policies, and the limited publications available to date on India in this field, It has been used deductive reasoning to synthesise an assessment of India's sustainable economic development landscape in this thesis. Inductive reasoning will also be used in relevant situations. For example, inductive reasoning will be used when explaining FDI programs and post-Covid19 programs announced under the Make in India program. But again, it has should be stated that the method commonly used in the thesis is deductive. Generally, this method is used to analyse data, documents and publications on the subject. In this context, it has been analysed these data with correct judgment and be aware of the limitations inherent in my way of thinking.

This thesis will be based largely on qualitative research methods. The basic definitions are that qualitative research can often not be only qualitative. Although this

seems like a very clear phrase, I think it does not help us fully understand qualitative research's nature. In social sciences, words such as 'subjective', 'political' and 'based' are often used to describe the basic characteristics of qualitative research; on the other hand, words such as 'positivist', 'abstract' and 'neutral' are often used to describe quantitative research. I believe that the main problem with such terms is that these words' meanings are so loaded and do not represent absolute methods. As a matter of fact, the research method used in real life can be as partial or unbiased as the researchers designed. Even stating an opinion is in itself a quantitative interpretation of a qualitative field, which seems to be a detriment to the social sciences, but also depends on the applicability of the methods used for an individual research topic.

The research methods that have been used in this thesis include text analysis of primary and secondary documents to gain insight into this area and use the literature of the research subject described efficiently. In addition, to add an extra dimension to this research and collate and analyse the opinions of experts related to the sectors, I undertook a survey with academicians, NGOs officials, government officers, and businessmen. In addition, Case studies were used to examine India's sustainable development program's functionality in-depth with analysis. However, hypothesis of thesis is not based on case study. In this respect, the use of case studies will be used to verify the theory or to examine the arguments for supporting the theories. As a result, case studies will be with a brief explanatory of a particular point and limit a particular point to conflicting examples.

Other qualitative methods like observational research, interviews and focus groups are not relevant to this topic. The remainder of this section will analyse the qualitative research methods that have been used in the thesis: textual analysis, case studies, and survey method.

Textual Analysis

Analysing documents is the most fundamental element of a social scientist when doing research. However, the documents examined must be classified to avoid an excessive amount of information available. The standard method for classifying documents is the primary and secondary model. However, there is no universal way to classify primary or secondary documents.

The primary material combining the time scale and target audience factors can be defined as the evidence that is part of the event in question. These documents are internal Ministry documents or Foreign Affairs papers. Examples of such sources include government-published articles, state-published documents, and private newspaper interviews. Secondary materials are public works that present the reconstruction of events. These studies generally include books, academic journals or theses. While these definitions give broad categories in terms of the types of materials used, there may also be uncertainties between each group. Primary documents also can be identified as facts within themselves and not representations of facts.

For those doing research on a topic, the best method is to work on the original source documents. However, when the original document is difficult to reach or analyse, secondary sources should be preferred. However, there are numerous problems faced by all sources regardless of their classification, including originality and reliability, representation, and meaning. Some of these problems are related to the quality of the documents, while others are related to the documents' reliability. It is the researcher's responsibility to identify such biases and to reveal any implications they may cause.

In this respect, it is possible to say that it is getting more difficult to obtain access to non-published senior departments' information. However, due to the small number of books and publications produced in certain fields, reading rates have decreased significantly. In addition, many english documents related to performance, initiatives, regulations, and analysis are published on the Ministries of India's websites. So, some of the research methodology parts is to access as many documents as possible from the Ministry of External Affairs (MEA), Department of Industrial Policy & Promotion (DIPP), Department of Electronics & Information Technology (DEITY), Make in India website, Ministry of Micro, Small and Medium Enterprises (MSME), Ministry of Urban Authority (MOUD), Digital India website, Invest India website and others.

No matter how easy and useful government websites are, I have been as meticulous in querying information as other text sources. It also provides a much broader scope for such problems in documents originating from the website than searching for library catalogues. As a matter of fact, it is possible to access or check the reliability of any document with ISBN or DOI number through JStor or third-party computer programs. Another challenge to consider is related to the credibility of resources on government websites. So, given governments' tendency to display a

positive image of themselves, how reliable can the sources downloaded from official websites be? It has been searched all newspapers in India to address such concerns. This situation enabled me to follow all the events that took place in the country.

However, it has been constantly tested the information gathered from government websites by comparing it with alternative sources. Such sources include national and international organisations such as Research and Information System for developing countries (RIS), Observer Research Foundation (ORF), McKinsey, Federation of Indian Chambers of Commerce and Industry (FICCI), Dezan Shira & Associates, India Brand Equity Foundation (IBEF), International Labour Organization (ILO), Organisation for Economic Co-operation and Development (OECD), and others that publish consulted information on India's industry and industry sectors. With such methods, the problems of relying on all official sources, especially official sources, have been greatly reduced, if not completely eradicated.

Case Study Method

Part of the way to address some of the research questions included a case study of industries under some Make in India program. Such an initiative showed how new investments to be made in the sectors found themselves in India's sectors, what kind of problems these investing companies faced, to what extent they changed the balances in the markets and what kind of contributions they made to the country's economy. In this respect, the case study can be generalised as a powerful research method that includes an in-depth examination of existing documents and interviewing individuals.

Case studies can be explained as a research strategy that focuses on understanding the current dynamics from a single perspective. Moses and Knutsen diversify this case studies under the following three main categories: theory confirming, theory infirming and generalising case studies²⁴. Theory confirming case studies are often used to support an argument or thesis. For this reason, such case studies are often based on a narrative. For example, India's obligation to reform the defence industry can be shown as an indicator of the difficulties experienced in the defence industry related to the investment difficulty. Theory informing case studies, on the other hand, tries to

²⁴ Jonathon Wayne Moses and Torbjorn L. Knutsen, *Ways of Knowing: Competing Methodologies in Social and Political Research*, New York: Palgrave Macmillan, 2012, p. 144.

refute a point or application. Finally, generalising case studies tries to synthesise a hypothesis or a new theory in a case study. An example of this is the FDI investments made from abroad for domestic production with joint foreign partners in cases where India is insufficient in production.

Generalising case studies are unique in that they use inductive reasoning instead of deductive reasoning. Also, any theory emerging from the study can be easily tested with directly falsifiable hypotheses. However, how many generalisations can be made from this type of sample is highly doubtful? As a result, the types of theory that can be produced from theory-building case studies are often broad. This will lead to a later generalisation of the case study, a series of similar repetitive studies that are unlikely to be successful. Second, if the process succeeds in forming a more general theory, it will be much more complex than the original and the general perspective will be lost. Therefore, given the nature of the subject, the use of case studies will be limited to either a brief descriptor of a particular point or its exemplary nature of a particular point.

Survey Method

The survey method, which refers to the sampling of individual units within a population, examines the methods of collecting survey data, the number of responses given to the questionnaire, and methods of improving its accuracy. In this regard, survey methodology refers to tools or procedures that ask one or more questions that can or cannot be answered²⁵. Researchers conduct statistical studies to make statistical inferences about the population studied. Such inferences are highly dependent on the questions of the survey used. Generally, conducting a quantitative survey in social sciences provides important information for public knowledge, market research, etc.

A single questionnaire comprises at least one sample, one method of data collection, and individual questions or items that become data that can be statistically analysed. In this regard, the survey can focus on different types of topics such as preferences, opinions, behaviour or factual information. Since the questionnaire is based on a sample of the population, the research's success depends on the representativeness of the sample relative to the target population the researcher is

²⁵ John J. Shaughnessy, Eugene B. Zechmeister and Jeanne S. Zechmeister, *Research Methods in Psychology*, New York: McGraw-Hill, 2011, p.91.

interested in. This target population can be formed in various ways, from the population in a region of the country to the employees of a company's unit. The respondents are called respondents and, depending on the questions asked, they can also represent themselves as individuals, employers, or other organisations they represent.

As a scientific field, the survey methodology aims to determine sample design principles, data collection tools, statistical adjustment of data and data processing. In this respect, survey methodology is considered both a scientific field and a profession. However, the most important methodological challenges of a survey method include how to make decisions when:²⁶

- Selection of potential samples and individuals,
- Communicating with sampled sections and collecting data,
- Evaluating and testing questions,
- Determining the ways to ask questions and collect answers,
- Adjust survey estimates for accuracy and internal consistency,
- Adjust survey estimates to correct detected errors.

The Sample is selected from the sampling frame that consists of a list of all population members of interest. The purpose of a study is to describe the larger population, not sample. This generalisation ability depends on the representative power of the sample. The most common mistake that arises in this regard is selection bias. Selection bias arises as procedures to select a sample will result in over or under-representation of some important aspects of the population. For example, if 70% of the population of interest consists of women and 30% of men, and the sample consists of 35% women and 65% men, women are under-represented, and men are over-represented.

Data Collecting includes gathering and diversifying the information needed for the survey. Each method used has its own advantages or disadvantages. The most common methods are telephone, mail, online surveys, one-on-one surveys at home or in public places. The functionality of each method may vary depending on the location, time and purpose of the survey.

Research Design refers to the different designs or general structure used in survey research. RS generally appears in three basic structures: cross-sectional,

²⁶ *Ibid.*

successive independent samples, and longitudinal studies. Cross-sectional is taken from a sample of the population of interest and used once. Successive independent is a random sampling from a population one or more times. On the other hand, longitudinal studies measure the differences in individual participants' responses over time, as opposed to an independent sample design.

Questionnaires are the most widely used tools in surveys. The results of the questionnaires have no value if they are written insufficiently. A variable category measured in the survey research is the demographic variables used to describe the respondents' characteristics in the sample. Demographic variables can be measurements of ethnicity, financial status, or age.

Questionnaires often evaluate individuals' preferences and attitudes, and many of the questionnaires use self-report scales to measure people's opinions and judgments about different items that result in a scale. To create a survey that will produce reliable and valid results, according to Shaughnessy, Zechmeister and Zechmeister, the following six steps should be preferred:²⁷

- Deciding what kind of information should be collected,
- Deciding how to conduct the survey,
- Creating the first draft of the survey,
- Revision of the survey,
- Pre-testing the questionnaire,
- Specifying the procedures for organising and using the questionnaire.

However, the question types to be created for surveys are as follows:

- Closed-ended questions; yes/no questions and multiple choice
- Open-ended questions; word association, sentence completion, story completion, picture completion and thematic apperception test
- Contingency questions²⁸.

²⁷ *Ibid.*

²⁸ *Ibid.*

The way a question is worded has a huge impact on how a research participant answers the question. In this respect, the researcher should be aware of the expressions while writing the questions. Researchers should keep in mind that different individuals, cultures, etc., factors can be interpreted differently²⁹.

In addition to all this, a problem's vocabulary should be very simple and directly under twenty words. Every question should be edited for readability, and leading questions should be avoided. If more than one question is used to measure a construct, some questions should be written in the opposite direction to avoid answer bias. The answer to an open-ended question can then be analysed using qualitative methods.

The following thesis is a detailed analysis of a Make in India innovation program that includes all development policy tools in a developing country, and an effective case study of the contribution that can be made to this program by comparing it with China's development policies. Critically, this emerging economy is trying to get an idea of whether it includes programs that include the whole country or has a growth model based on regional development. Internationally, India's Make in India program will try to verify the claim that this theory colours the search for national resources in politics. It will be strategically efficient to analyse the development policies necessary to make India a production centre of the whole world. Finally, the extent to which international developments affect this development policy and India's steps against these effects will be investigated.

In this thesis, the subject will be analysed comprehensively from past to present within this scope. The first chapter will introduce the thesis topic by delineating the concept of sustainable economic development, the history of development programs in India, and lastly, clarify Make in India's main target. In this purpose, this chapter will begin with the definition of sustainable economic development, and modern and historical theories on the economy. This chapter will also examine the extent of sustainable economic development models and effects on the global economy. Finally, this chapter will conclude with a history of economic development in India; five-year plans, development programs, and regional development policies, to more clearly explain and analyse the economic situation until the present date. As a result of all these explanations, the theoretical framework and development formulation will be provided.

²⁹ *Ibid.*

In the second chapter, it will be explained what the Make in India program is and examine what kind of policies the program takes in all areas of interest. This chapter will also examine domains and government policies launched with all scope.

In the third chapter, it will be explained China's economic development programs and plans. China's development policies and program Make in India will be analysed comparatively from historical to current policies. This chapter will also focus on what would be useful to include in the Make in India program from China's plans and programs.

In the last chapter, outcomes and recommendations will be finalised to ensure that the Make in India initiative program is sustainable. Its contribution to the Indian economy is increased and more efficient. In addition, the new programs announced under the Make in India program during the Covid19 period and after will be announced and analyses will be made within the scope of hypotheses and research questions to make the Make in India program more efficient in the future.



Chapter-1

The Concept of Development and Historical Evaluation of Development in India

I. The Concept of Development and Historical Evaluation of Development in India

Societies are constantly striving to live in better conditions since they exist. As a result of this effort, social scientists have been researching for centuries how to more effectively meet unlimited human needs with scarce resources and increase production capacity. In this process, increasing the countries' production capacity and increasing them to higher levels in economic terms, the necessity to realise some social and cultural transformations has emerged.

The concept of development has become a frequently used concept in the literature after World War II. The devastation of the war and the efforts of the countries to recover, especially during the 1950s and 1960s, the economic activities of countries in the forefront of efforts to create systems focused on continuous growth; in this context, the United Nations has developed development projects through specialised units to address the development problems of the Third World. In the 1970s, environmental disasters, which had a significant impact, and the idea that protecting the environment is an essential tool for development started to take place in the world literature, led to the formation of the concept of sustainable development and the development of a new dimension³⁰. Besides, it is observed in many sources that development theory is used instead of concepts such as industrialisation, modernisation, progress, economic growth, and social/structural change. The change in the definition of the idea of development; economic growth, development, sustainable development in the field of social scientists to investigate the differences in the level of the country's economy, and as a result of the results obtained by the search for solutions to policy recommendations.

Until the 1990s, the concept of development was used in the same sense as economic growth³¹. However, until the 1970s, the development idea was measured by the increase in income to the nation and defined as economic growth based on

³⁰ Yesim Kubar, "Relationship Between Economic Growth and Development Indicators of Less Developed and Developing Countries: A Panel Data Analysis", *Journal of Faculty of Economics and Administration Sciences*, Ardahan: 2016, p.68.

³¹ Burcu Ozcan and Ayse Ari, "Finansal Gelisme ve Ekonomik Buyume Arasindaki Iliskinin Ampirik Bir Analizi (An Empirical Analysis of Relationship between Financial Development and Economic Growth)", *Business and Economics Research Journal*, Vol.2, No.1, 2011, p.122.

industrialisation³². GDP, national income per capita, and other economic indicators have been accepted as quantitative data that best reflect development. However, the fact that some countries that exhibited rapid economic growth could not solve social problems, political instability, rising unemployment rates, unequal income distribution, high crime rates, and environmental issues were accepted as an indicator that economic growth alone was not sufficient. The concept of growth-indexed development was inadequate; the redefinition of the concept of development after the 1970s and highlighted the relationship between economic growth and human development³³. This has brought a new understanding to the concept of development that includes human, social, cultural and environmental dimensions; In this context, sustaining the economic policies of the countries has been expanded. Development today; in order to achieve common interests in a globalising world sustainably, it is accepted as an understanding that underdeveloped, developing, and developed countries, which perceive the world as a whole, assume typical responsibilities³⁴.

The phenomenon of development is not a process that occurs simultaneously all over the world. According to social scientists, the generally accepted view is that there are differences in the degree of development of all development moves due to the excessive growth of various centres within a given country³⁵.

From the historical perspective, the Industrial Revolution process; rich states, poor states, and ruling states³⁶. Some states are richer or dominate other states because their production technologies are superior; It is understood that this is because it depends on a bilateral military organisation and the existence of a strong social and cultural structure³⁷. This situation changed after the Industrial Revolution. The Industrial Revolution is the starting point for the emergence of countries as developed, developing, or underdeveloped countries. Especially in the field of industry and

³² *Ibid.*

³³ Peter L. Rousseau, "Historical Perspective on Financial Development and Economic Growth", *Finance and Real Economic Activity*, Vol85, No.4, 2003, p.91.

³⁴ United Nations, *Achieving Sustainable Development and Promoting Development Cooperation: Dialogues at the Economic and Social Council*, New York: United Nations, 2008, p.49.

³⁵ Charles Oman, *Policy Competition for Foreign Direct Investment: A Study of Competition among Governments to Attract FDI*, Paris: OECD Publication Service, 2000, p54.

³⁶ Benedict Macon Cooney, *The Industrial Revolution, Politics and Public Policy*, Institute for Global Change, December 16, 2019 (<https://institute.global/policy/industrial-revolution-politics-and-public-policy>) Last Access: 03.02.2021

³⁷ Nursen Vatansever Deviren and Onur Yildiz, "Bölgesel Kalkınma Teorileri ve Yeni Bölgeselcilik Yaklaşımının Türkiye'deki Bölgesel Kalkınma Politikalarına Etkisi (Regional Development Theories and Effects of New Regionalism Approach to the Regional Development Policies in Turkey)", *Celalabat: Akademik Bakış Press*, No.44, 2014, p.7

technology, advances and progress have resulted in the rapid growth of countries; As a result of this growth, colonial activities have tried to overcome this shortage of resources due to lack of resources. The adventure after this process has largely exceeded the difference between the development levels of the countries. As a result, a development story extending from the Industrial Revolution to the present day has made some countries the status of developed countries and the other part has the status of less developed countries³⁸.

After the Industrial Revolution, economists focused on issues such as whether full competition was an ideal and stable equilibrium condition³⁹. In the 1930s, the focus was on; economic crisis, unemployment and economic fluctuations⁴⁰. After World War II, the concept of development has taken its place in the literature and has become a scientific expression and concept.

The concept of development, which began to emerge as a sub-discipline of economics after World War II, emerged as a result of the aim of realising the development goals of the countries that gained their political independence after the war and to ensure that the western states that were worn out in the war came back to a good economic position⁴¹. As a result, I can easily assert that the concept of development is related to the development process and phase of the development process in less developed countries. All these policies followed by less developed countries; all of these factors, such as economic steps, geographical factors, demographic structures, etc., differed in each country and region; as a result of this, development economics has developed in various ways, and the way of subdivision has been opened⁴². As a matter of fact, the fact that the oil crisis of the 1970s put many developing countries in a difficult situation indicates that the concept of development is not only related to the economy; understanding that it requires expertise in areas such as public health, nutrition, housing and education; this resulted in a change in the content and basis of the concept of development⁴³.

In the 1980s, the concept of development has started to lose its importance due to the increase in the global activities of the countries, the increase in the efficiency of

³⁸ *Ibid.*

³⁹ Nicholas Crafts and Peter Fearon, "Lessons from the 1930s Great Depression", *Oxford Review of Economic Policy*, Vol.26, No.3, September 2010, p.289.

⁴⁰ *Ibid.*

⁴¹ Muhtesem Kaynak, *Kalkınma İktisadi (Development Economics)*, Ankara: Gazi Press, 2011, p.44

⁴² *Ibid.*

⁴³ *Ibid.*

international financial institutions and the fact that the concept of development has become an inter-state structure instead of being a single state-oriented; instead, the concepts of regional development and sustainable development have started to gain importance⁴⁴. In particular, the idea of development only deals with economic issues; the idea of regional development, which addresses all these issues more comprehensively, has increased its popularity as a result of its inability to solve economic, social, political and cultural differences between countries and regions, and the inability to address the needs of the period. In the new regional development approach, it is seen that political, economic, social, geographical issues and regional imbalances, as well as regional competitiveness, are handled within the scope of the assessment⁴⁵.

In 2000, world leaders conceded for eight Millennium Development Goals (MDGs), to be achieved outlining broad commitments to good governance, democracy and human rights. The Millennium Goals are:

- Halving extreme poverty and hunger,
- Achieving universal primary education,
- Empowering women and achieving gender equality,
- Reducing mortality for the under-fives by two-thirds,
- Reducing maternal mortality by three-quarters,
- Reversing the spread of major diseases,
- Ensuring environmental sustainability,
- Creating a global partnership for development with targets for trade, aid and debt relief⁴⁶.

The problem of regional development in a globalised world to eliminate regional imbalances has become a development problem based on innovation and sustainable competitiveness led by regional actors (local industry, research organisations, NGOs,

⁴⁴ Keekok Lee, "Global Sustainable Development: Its Intellectual and Historical Roots", *Global Sustainable Development in the 21st Century*, Ed. Keekok Lee, Alan Holland and Desmond McNeil, Edinburgh: Edinburgh University Press, 2000, p.35.

⁴⁵ Vatansever Deviren and Yildiz, "Bölgesel Kalkınma Teorileri ve Yeni Bölgeselcilik Yaklaşımının Türkiye'deki Bölgesel Kalkınma Politikalarına Etkisi (Regional Development Theories and Effects of New Regionalism Approach to the Regional Development Policies in Turkey)", p. 8.

⁴⁶ John Blewitt, *Understanding Sustainable Development*, London: Sterling Publishing, 2008, p.44.

local governments) aiming to increase the competitiveness of the region⁴⁷. Economic Growth and Development, Positive Discrimination are directly having impressive global impacts influencing the broader economic environment, and life experiences of citizens in India⁴⁸. Doreen Massey argues that social relations of domination and subordination are stretched over time, the whole planet, so that child labour on one continent supports consumer materialism in another, or environmental degradation or conflict in one region subsidises politics and energy use⁴⁹.

I.I. Dimensions of Differences in Development Concept

Development dimensions of all countries in the world are not seen at the same level in all regions of those countries. This difference in size; it shows differences between countries as well as areas within countries⁵⁰. All these differences exist in all countries, in large and small sizes/dimensions, but; it effects significantly in underdeveloped and developing countries. Regional differences in developed countries are less than in underdeveloped or developing countries⁵¹. This situation also varies according to the region where the country is located in world geography⁵². Besides, the political, geographical, and cultural factors that the countries are in effect the country's development levels between the regions⁵³. The most apparent reason for the increase in all these economic differences is the polarisation between the countries' regions as a result of the central areas becoming the centre of attraction.

I can exemplify all of the propositions I have advocated above, on micro and macro scale. Mostly until the 21st century, the level of development in Europe and Asia was very different. Even the understanding of the history of the past is based on a Europe-based reading. As a result, the European countries complete their development moves very quickly; the Asian region followed these development policies 100 years

⁴⁷ Cem Okan Tuncel and Hasan Bakir, "The Role of Development Agency in an Innovative-Based Regional Development Process", *Business and Economics Research Journal*, Vol.1, No.4., 2010, p.21.

⁴⁸ *Ibid.*

⁴⁹ Dooreen Massey, "Power-geometry and a Progressive Sense of Space", *Mapping the Futures: Local Cultures, Global Change*, Ed. John Bird, Barry Curtis and Putnam Barry, London: Routledge, 1993, p. 69.

⁵⁰ Amartya Sen, "The Concept of Development", *The Handbook of Development Economics*, Ed. Hollis Chenery and T. N. Srinivasan, Elsevier, 1988, p.11.

⁵¹ *Ibid.*

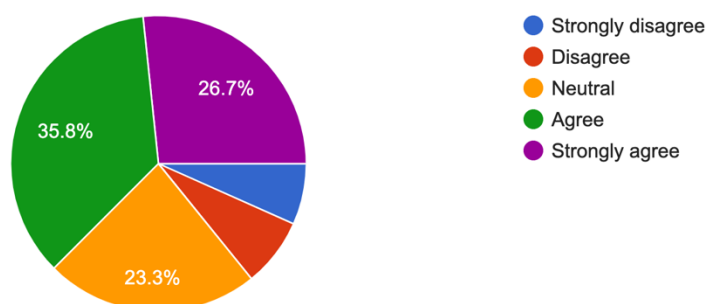
⁵² *Ibid.*

⁵³ *Ibid.*

behind on average⁵⁴. As a result of this, the dimensions of development between Norway and Kazakhstan or Sweden and India and the regional development dimensions of these countries have reached different levels. For example, in Sweden, as a development move, nuclear power plants were shut down and set up as the development move of natural energy resources⁵⁵; in India, the policies implemented for railway and highway construction, the opening of factories and the development of the industry by implementing policies to increase the employment are defined as development moves in order to prevent a single unreachable place⁵⁶. The change and development move that took place in the same century is one of the clearest indications that the concept of development in the world is handled in different literature and dimensions. However, the differences in the development of some countries in some regions cause different development band problems in these countries. As a matter of fact, the answers given to the questionnaire asking whether the social, economic and cultural effects of sustainable development programs have an effect are as follows;

The effect of political, economic, and cultural relations with other countries cannot be denied for a sustainable economy.

120 responses



Graph: Question-20 in the Questionnaire

In addition, the rates of the answers to the question asked about the effect of political stability on development policies are as follows;

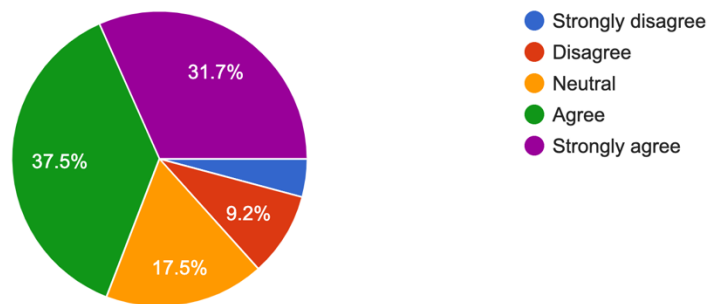
⁵⁴ John Page, "The East Asian Miracle: Four Lessons for Development Policy", *NBER Macroeconomics Annual*, Vol.9, 1994, p. 222.

⁵⁵ Olle Krantz, *Economic Growth and Economic Policy in Sweden in the 20th Century: A Comparative Perspective*, Ratio Working Papers, Stockholm: The Ratio Institute, 2004. P.4.

⁵⁶ Barbara and Hariss-White, *India Working: Essays on Society and Economy*, Cambridge; New York: Cambridge University Press, 2003, p.19.

Political stability in India has a positive impact on the country's economic policies.

120 responses



Graph: Question-21 in the Questionnaire

The responses to both questions were positive and the participants agreed that stability and social, cultural and economic factors have an impact on development. In this case, taking steps by taking these values into account in the programs and targets to be implemented will be a factor that will increase the impact of the program in the upcoming period.

The welfare level of some regions of the country increases, while the rest of the other regions may lose similar features between developed and backward regions and alienation of these regions⁵⁷. In other words, people living together in regions with high levels of development often ignore differences such as religion, sect and race, and even consider these factors as cultural richness. The same differences in the backward regions may be a source of unrest. It is argued that the region is neglected and pushed to the background because of ethnic or sectarian differences. As this perception finds support among the backward people of the region, the difference in regional development degree within the country can turn into an incredibly problematic situation⁵⁸.

One of the most critical issues in determining country and region-oriented development policies is to analyse the region better and to analyse these analyses very well for the solution. In order to understand the social, economic and cultural dynamics of the region in question, it is necessary to analyse and interpret the area. It should not be forgotten that in every development move, the aim should be to ensure that the

⁵⁷ Vatansever Deviren and Yildiz, "Bölgesel Kalkınma Teorileri ve Yeni Bölgeselcilik Yaklaşımının Türkiye'deki Bölgesel Kalkınma Politikalarına Etkisi (Regional Development Theories and Effects of New Regionalism Approach to the Regional Development Policies in Turkey)", p.8.

⁵⁸ Zeynel Dinler, *Regional Economics*, Bursa, Turkey: Ekin Press, 2012, p. 61.

people of that country or region substitute their lives in better conditions. The transformation of this goal into a tool and the goal remains only in numbers. In fact, it is not a development for that country but a long-term collapse of the country. In larger economies of Asia, such as China, India and Indonesia, economic growth is also a priority, as it has been throughout the 1980s in the so-called Newly Industrialising Countries⁵⁹. However, economic growth is also a means to address poverty, and a cleaner global environment is a much lower priority than the immediate environmental problems associated with poverty, like securing clean drinking water, sustainable farming systems and adequate shelter⁶⁰.

Considering all these observations and analyses, in the following section, the theories containing all these equations will be explained to understand the better Make in India Initiative program. There are many studies to explain or theorise the sustainable development model of a region. In this chapter, however, the theories that explain the Asian region and which are used to understand the Indian economic development framework will be described in the light of traditional and modernist theories.

I.II. Development Theories and Their Effects on the Present

With the introduction of the concept of regional development in the literature in the 1950s, the seeking for reconciliation and interpretation of the old economic assumptions with the developmental stages to the present day has begun to come into question. In this context, the roots of regional development can be reduced to the place of establishment; but in general, the concept began to be used in the USA in the 1950s⁶¹. The development of flexible production systems in the 1970s and the post-Fordism debates that emerged as a result of the economy gaining a transnational dimension began to reinterpret the concept of regional development⁶².

The first theories of regional economic growth have focused on international trade and national economic growth. However, Neoclassical theories have predicted

⁵⁹ Christina Majaski, *Newly Industrialized Country*, December 25, 2020 (<https://www.investopedia.com/terms/n/newly-industrialized-country.asp/>) Last Access: 04.02.2021

⁶⁰ Michael Redclift, "In Our Own Image: The Environment and Society as Global Discourse", *Environment and History*, Vol.1, No.1, 1995, p. 116.

⁶¹ Niles Hansen, Benjamin Higgins and Donald J. Savoie, "Regional Economic Development Policies and Programs in the United States: A Critical Overview and Implications for the Future", *Regional policy in a Changing World*, New York: Springer, 2013, p.122.

⁶² *Ibid.*

that over time, price differences of the labour force and other factors will decrease, and convergence will occur⁶³. However, in the regional development planning, it is vital to consider three main currents: goods and services flow, human flows and financial flows. The dynamics that make regional economic growth sustainable in these three main currents are investments, increase in physical fixed capital stock and production capacity, bringing know-how transfer of new technologies to the region through foreign trade and export revenues, human resources, labour flows and final capacity⁶⁴.

The per capita output most measures merely the level of development of a country. It is theoretically accepted that regions with less gross regional product grow faster than regions with the more gross regional product⁶⁵. While the regional and economic development policies in the countries until 1980 were firmer cantered and based on incentives⁶⁶; in the following period, after liberal policies increased, regional economies based on small production started to interact with their own dynamics⁶⁷. During and after the globalisation period, it focuses on achieving local economic developments, infrastructure studies, and financial and institutional recovery⁶⁸. As a result of this, we can gather regional and sustainable development policies in 3 groups in order to explain better the scope of the Make in India program and try to establish its theoretical infrastructure:

1. Theories Stimulating Internal Development Programs
2. External Stimulation of Sustainable Development Programs
3. Spatial Stimulation of Sustainable Development Models.

This structure is essential to analyse better the Make in India program, bridge the models of sustainable economics between the past and the future, and explain and analyse the content and purpose of the program in a theoretical context. Of course, there are many other theories or systems in the areas of sustainable development and regional development, but the theories that affect and generalise this program will be explained

⁶³ Bernhard Felderer and Stefan Homburg, *Macroeconomics and New Macroeconomics*, Berlin; New York: Springer- Verlag, 1992, p.66.

⁶⁴ Rasim Akpınar, Kamil Tasci and Mehmet Emin Özsan, “Teoride ve Uygulamada Bölgesel Kalkınma Politikaları (Regional Development Policies in Theory and Practice)”, Bursa: Ekin Press, 2011, p. 11.

⁶⁵ Felderer and Homburg, *Macroeconomics and New Macroeconomics*, p.69.

⁶⁶ *Ibid.*

⁶⁷ Akpınar, Tasci and Özsan, *Teoride ve Uygulamada Bölgesel Kalkınma Politikaları (Regional Development Policies in Theory and Practice)*, p.16.

⁶⁸ *Ibid.*

in this section. In order to better analyse the explanations and interpretations in the following chapters, it is important to understand the purpose and content of these theories.

I.II.I. Theories Stimulating Internal Development Programs

Sector Theory and Stage Theory are the major theories that explain the factors that internally affect sustainable and regional development phases. The main thesis in both of these theories is to propose internal dynamics as a solution for the country's development⁶⁹.

According to the Sector Theory, the economic development process is started first with the progress of a sector and this progress is then transferred to the second and third sectors accompanying the sector⁷⁰. This may vary depending on the products' income elasticity in the industries as mentioned earlier, and the relative differences in average earnings per worker in different sectors⁷¹. In this context, this theory, which gives importance to the differences in demand and productivity between sectors, follows an essential way in interpreting the vital factors that play a role in the growth of an economy and the relations of growth with labour.

According to the theories of stage development, societies' political, cultural and economic structures are basically similar. Therefore, underdeveloped countries will develop themselves by following developed countries' development strategies on their way to development⁷². According to this theory, each society should follow a particular development line and see the underdevelopment as a temporary stage on the way to development⁷³. The primary (agricultural), secondary (industrial) and tertiary (service) sector approaches, Fisher and Clark's basic assumptions, are basically regarded as simple-stage development theory, but are also considered to be the basis on which

⁶⁹ John B. Parr, "Regional Economic Development: An Export Stages Framework", *Land Economics*, Vol.75, No.1, 1999, p.95.

⁷⁰ *Ibid.*

⁷¹ Sammy Rengasamy, *Understanding Social Development*, 2011, p.7.

(<https://www.slideshare.net/srengasamy/social-development-25273031>) Last Access: 02.02.2021.

⁷² Gunnar Myrdal, "The Theories of 'Stages of Growth'", *Scandinavian Economic History Review*, Vol.15, No.2, 1967, p. 11.

⁷³ Vernon W. Ruttan, *Growth Stage Theories and Agricultural Development Policy*

(https://www.epw.in/system/files/pdf/1965_17/32/growth_stage_theories_and_agriculturaldevelopment_policy.pdf) Last Access: 03.02.2021

development economics is laid⁷⁴. Then, Rostow's theory of growth stages is important in this field. Rostow's work, "Stages of Economic Developments", is one of the most essential works in this field. In this study, Rostow argues that society will complete its development through the historically traditional society, the society in preparation, the society, in the beginning, the society in the way of economic maturation and the society in the age of mass consumption⁷⁵.

It is important for the protection of national interests that these two fundamental theories make the development process and planning according to these values with reference to the importance of internal effects in production and development. Interpretation of these theories is crucial for the functionality of the Make in India initiative program, especially in the cross-sectoral transition.

I.II.II. External Stimulation of Sustainable Development Programs

The most commonly used theories in the regional economic analysis include analysing the factors affecting the economy in general. The most frequently theorised theory is the Export-Based Model. This model is generally described as an analysis method. According to this method, it is used to estimate the effect of exports on income or employment. Foreign trade has a significant impact on the growth of an economy⁷⁶. Export-based development models are very important and decisive for a region's competitiveness in foreign trade, overall economic performance, and the region's success. Accordingly, this theory emphasises the indirect impact of the region's export-based sectors on income, investment and productivity growth, and its impact on non-trade activities of the region⁷⁷.

Of course, to achieve this, it is necessary not only to explain the theory but also to interpret it with other theories and examine the commercial policies on a global scale and accept that production is not the only factor in development. As a matter of fact, selling your product and expanding your market volume on a global scale will lead you

⁷⁴ *Ibid.*

⁷⁵ W. W. Rostow, "The Stages of Economic Growth", *The Economic Review*, Vol.12, No.1, 1959, p.11.

⁷⁶ Morgan D. Thomas, "The Export Base and Development Stages Theories of Regional Economic Growth: An Appraisal", *Land Economics*, Vol.40, No.4, 1964, p.421.

⁷⁷ Burcu Kilinc Savrul, *Bolgesel Kalkinma Teorileri ve Politikaları: Avrupa Birliği ve Türkiye (Regional Development Theory and Policy: The European Union and Turkey)*, PhD Thesis, Istanbul University Social Sciences, 2012, p. 51.

to success in a sustainable economy⁷⁸. Otherwise, the export-based model does not have a success rate⁷⁹. Regional development policies for India are generally planned on this model. This model is essential for the reflections of this theory and the interpretation of the analysis in the following sections. It is possible to find analyses in this area in classical economic models, but the global interpretation is crucial for the success and sustainability of the Make in India program.

I.II.III. Spatial Stimulation of Sustainable Development Models

Spatial theories, which cover the whole of the studies on sustainable development and regional development, represent the whole set of programs designed to make the development policies planned for a specific field more functional than the classical ones⁸⁰. As a result, it may be useful for developing the program to analyse the Make in India Initiative program in general with the Growth Pole Theory in the regional context, the theory of central locations and the theory of industry foci.

The growth pole theory is one of the theories used to explain a particular field's economic and social transformation⁸¹. In this context, polarisation is used to refer to the irregular development process resulting from the activities of several initiatives. These polarisations occur in two ways: When there is no economic activity in an underdeveloped region, it can be turned into a development pole through economic activities or state intervention⁸². The most effective method for eliminating the imbalances resulting from both is the development of poles in certain regions⁸³. From the moment of economic activity in a region, this region becomes a centre of attraction. The labour and capital that migrated to this developing region cause further underdevelopment of the less developed regions. On the other hand, economic activities that intensify in the development pole begin to spread from the centre to the

⁷⁸ Morgan, "The Export Base and Development Stages Theories of Regional Economic Growth: An Appraisal", p.423.

⁷⁹ Savrul, *Bölgesel Kalkınma Teorileri ve Politikaları: Avrupa Birliği ve Türkiye (Regional Development Theory and Policy: The European Union and Turkey)*, p. 55.

⁸⁰ Klaus Desmet and Rossi Hansberh Esteban, "Spatial Development", *The American Economic Review*, Vol.104, No.4, 2014, p.1219.

⁸¹ Savrul, *Bölgesel Kalkınma Teorileri ve Politikaları: Avrupa Birliği ve Türkiye (Regional Development Theory and Policy: The European Union and Turkey)*, p.61.

⁸² Savrul, p.63.

⁸³ *Ibid.*

environment⁸⁴. The polarisation that usually occurs around industrial investments accelerates the development of the region⁸⁵. The centre of the polar region grows and forms a transportation network that provides the flow of goods and services⁸⁶.

In the Make in India Initiative Program, we can contribute to a wider context of analysis and economic progress, especially with the propositions of this theory underpinning transport and infrastructure investments. This polarisation is a common situation among states today. The application of a theory that can improve all subjects from the level of education of the public to the standards of social life can be a contributing factor for the continuity of this program, especially as a sustainable development goal⁸⁷.

The Theory of Central Places focuses on studies on preserving the stability of the economy after the coat of arms of the population⁸⁸. In this theory model, which emerged after the 1970s, German socialist Walter Christaller, who explained new economic formations that emerged on a regional scale, examined his studies on growing cities⁸⁹. In this context, Christaller, who states that the city is a service centre and a structure that provides goods and services to its environment, based this theory on three assumptions. First, it considers the periphery of the central city as a flat and homogeneous area and assumes that there is no limit to factor movements. Secondly, it is assumed that consumers will receive a good and service from their nearest centre, and lastly, it is based on the assumption that everyone can supply it for as long as there is purchasing power for any good⁹⁰. Although this theory does not dominate the global world today, it is especially important to analyse regions that contribute more to the economy of the region where agricultural activities are carried out and the functionality of the sustainable economy. As a matter of fact, reaching the market and the cities' hierarchical structure have a supporting effect on market areas and wider economic activities.

⁸⁴ John B. Parr, "Growth-pole Strategies in Regional Economic Planning: A Retrospective View. Part 1. Origins and Advocacy", *Urban Studies*, Vol.36, No.7, 1999, 1196.

⁸⁵ *Ibid.*

⁸⁶ Akpınar, Tasci and Özsan, "Teoride ve Uygulamada Bölgesel Kalkınma Politikaları (Regional Development Policies in Theory and Practice)", p.17

⁸⁷ Raghuram Rajan, "Make in India: Largely for India", *Indian Journal of Industrial Relations*, Vol.50, No.3, 2015, p.365.

⁸⁸ Richard G. Lipsey and B. Curtis Eaton, "An Economic Theory of Central Places", *The Economic Journal*, Vol.92, No.365, 1982, p.56.

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*

Finally, the New Industrial Focus approach can be discussed in this section. This term, which was first put forward in Alfred Marshall's *Principles of Economics* published in 1922, started to be used with spatial analysis of development and industry as a result of economic crises in the 1970s⁹¹. The industrial focus is generally used for interpretations in periods when information is created and turned into methodology and policies that increase the competitiveness of the regions are followed. In order to achieve and develop sustainable development policies, especially in today's competitive markets, it is important to benefit from this theory in terms of providing useful comments and inferences.

I.III. The Conceptual History of India's Sustainable Economic Development

After the declaration of independence in 1947, the Indian territories, which did not enter into any planned development in the post-independence period, development plans in India; it was initiated in March 1950 with the establishment of a government decree and the Planning Commission, with the publication of the government declaration aimed at increasing the living standards of people through efficient use of national resources, increasing production and creating jobs for all⁹². The failure of the Imperial Agricultural Research Council in 1929 prior to the independence period and the absence of any long-term development plan, apart from the "Produce More" campaign in Bengal, necessitated greater emphasis on economic activities during the establishment of the country⁹³. The Planning Commission's duties established as a result of all these requirements are the valuation of national resources, strengthening weak resources, making plans for the most effective and balanced use of resources, and determining priorities.

The chairman of the Planning Commission, consisting of a president and seven members, was also the country's prime minister. Jawaharlal Nehru as the first chairman of this commission. The commission continued until 2014 and announced the establishment of a think-tank named NITI Aayog with the announcement of the Make

⁹¹ Katia Caldari and Fiorenza Belussi, "At the Origin of the industrial District: Alfred Marshall and the Cambridge School", *Cambridge Journal of Economics*, Vol.33, No.2, 2009, p.340.

⁹² Rob Jenkins, *Democratic Politics and Economic Reform in India*, Cambridge: Cambridge University Press, 2000, p.16.

⁹³ *Ibid*, p. 44.

in India initiative program in 2014⁹⁴, and the government to which the Planning Commission's duties were transferred to it.

There are 12 Five-year Plans in India from 1951 until the announcement of the Make in India program. The most important point to be mentioned in this period is the increase of the country's population by five times from the first plan to the last. Especially in the last two plans, the population has increased by 400 million on average⁹⁵. Looking at this whole population structure, a broader and more comprehensive development plan was needed for the country's future and sustainability. The creation and extension of the Make in India program are based on this objective. These Five-year Plans have been a work of sustainable development policies in general and the period's political conjuncture⁹⁶. In this respect, these plans are of great importance.

Plans were made primarily to improve agriculture and irrigation systems in First five-year plan. To increase agricultural production to meet the country's food needs was the main target⁹⁷. In the second five-year plan, besides industrial development, industrial policies more appropriate to the period's economic models were followed, and these programs were formed within the framework of the "socialist society model"⁹⁸. In the second plan, policies aimed at rapid industrialisation, a 25% increase in national income, reducing inequality in income and wealth distribution were discussed⁹⁹. The main objective of both plans is based on land reform. As a result of the abolition of the Zamindar System, which has been going on since the Mughal Empire period, changing land tenure and increasing agricultural production were determined as the first target in these two plans¹⁰⁰. For this purpose, in the first two plans, the importance of cooperatives was given and the contribution to the planning was aimed¹⁰¹. The Indian government in the 1950s adopted a very particular strategy of

⁹⁴ Press Information Bureau, *Planning Commission to NITI Aayog, Making Strategies for Transforming India*, 16 August 2017 (<https://pib.gov.in/newsite/printrelease.aspx?relid=170000>) Last Access: 03.02.2021

⁹⁵ To see the differences in population growth rates:

<https://data.worldbank.org/indicator/SP.POP.GROW?locations=IN> Last Access: 03.02.2021

⁹⁶ Hariss-White, *India Working: Essays on Society and Economy*, p.73.

⁹⁷ Pulapre Balakrishnan, "The Recovery of India: Economic Growth in the Nehru Era", *Indian Economy Since Independence*, Ed. Uma Kapila, 2019, p.241.

⁹⁸ Rakesh Mohan and Munesh Kapur, "Pressing the Indian Growth Accelerator: Policy Imperative", *Indian Economy Since Independence*, Ed. Uma Kapila, 2019, p.271.

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

¹⁰¹ Rajesh Chandra, *Industrialization and Development in the Third World*, London: Routledge, 2003, p. 24.

economic development: rapid industrialisation by implementing centrally prepared five-year plans that involved raising a massive amount resources and investing them in the creation of large industrial state-owned enterprises. The industries chosen were those producing basic and heavy industrial goods such as steel, chemicals, machines and tools, locomotives, and power¹⁰². According to Adhia, by the late 1950s, several problems resulting from the planners' chosen economic development strategy were coming to the fore, and such problems intensified in the 1960s and 1970s¹⁰³.

The Third (1961-1966) and Fourth (1969-1974) five-year plans are generally a transition period. Due to the destruction of wars in the world political structure, the economic difficulties of the war with Pakistan, and the political turmoil of 1966, this period's programs were inadequate to achieve the target¹⁰⁴. The most important feature of these two periods was the fact that investments in transportation and communication sector started along with agricultural investments and plans, that national income became positive for the first time since the establishment and that equality and justice issues were included in the plans¹⁰⁵. In response to the food crisis of the mid-1960s, the government changed its agricultural strategy. Rather than holding out for the reform of agrarian institutions, it began to guarantee higher crop prices to farmers and utilise subsidies to promote the use of modern inputs such as chemical fertilisers and high-yielding varieties of grain developed in other parts of the word. So, resulting in a surge of production- the so-called "green revolution" of the late 1960s- made the country self-sufficient in food grains¹⁰⁶.

The Fifth (1974-1979), Sixth (1980-1984) and Seventh (1985-1990) development plans can be described as periods of intense political turmoil. For example, the fifth plan should have been terminated a year early. The sixth plan came into force late due to uncertainty and lack of consensus and indeed distant targets and was inadequate in achieving these goals¹⁰⁷. In the seventh period, the targets were reduced, and due to the fact that the political crises hit the economy in the world, the targets were reached in general terms. In the fifth five-year development plan, the main objective was to eradicate poverty and ensure self-esteem rather than economic

¹⁰² Nimish Adhia, "The History of Economic Development in India Since Independence", *Education about Asia*, Vol.20, No.3, 2015, p.19.

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid*, p.20.

¹⁰⁵ *Ibid.*

¹⁰⁶ *Ibid.*

¹⁰⁷ Mohan and Kapur, "Pressing the Indian Growth Accelerator: Policy Imperative", p.281.

recovery¹⁰⁸. The Sixth five-year plan was followed by policies aimed at accelerating and increasing exports and investments as well as poverty alleviation plans.

The planners could not eradicate poverty within five years, but thanks to politicians' desire, it has reached this goal quickly¹⁰⁹. As a matter of fact, the increasing number of poverties to date shows how consistent and realistic attitudes of the period's planners were. The seventh five-year plan can be described as a period of stagnation compared to the previous period. In this period, a growth rate of 5% was achieved, and total expenditures reached an average of 1800 billion rupees¹¹⁰. Looking at the average annual growth of per-capita GDP in the 1980s and 1990s together, India ranks among the ten fastest-growing countries in the world. This achievement is primarily a reflection of the fundamental growth potential of the Indian economy. The economic reforms undertaken so far have helped to enhance that potential in some sectors, but they have not radically altered it¹¹¹.

The Eighth (1992-1997) five-year development plan has reduced unemployment and poverty in general, an increase in exports and a significant improvement in inflation¹¹². In particular, the debt crisis that has existed from the past to this period has been seriously overcome, industrialisation has been encouraged by the private sector, and as a result of this incentive, it has created an opportunity to spend more of the state investment and resources on the use of infrastructure and human resources¹¹³. According to Dreze and Sen, the reasonable growth rates of the 1980s have been sustained and surpassed in the 1990s is a noteworthy achievement¹¹⁴. Kapila reduces this expression that considering that the 1990s have been a period of relatively slow economic growth in many other countries; so, the important point to recognise is not so much the acceleration of economic growth in the 1990s, compared with 1980s, but the respectable rates of growth of the Indian economy, by international standards, in both decades combined¹¹⁵. At the end of the day, all these returns paved the way for

¹⁰⁸ *Ibid.*

¹⁰⁹ Minoo R. Masani, "India: Problems with the Sixth Five-Year Plan", *Asian Affairs: An American Review*, Vol.6, No.2, November 1978, p.99.

¹¹⁰ In this section, in general, all figures and values are interpreted with reference to the data of CMIE (Centre Monitoring Indian Economy), (<https://www.cmie.com/>) Last Access: 03.02.2021

¹¹¹ Uma Kapila, "Indian Economy at Independence", *Indian Economy Since Independence*, New Delhi: Academic Foundation Press, 2019, p. 41.

¹¹² *Ibid*, p.43.

¹¹³ *Ibid.*

¹¹⁴ Jean Dreze and Amartya Sen, *India: Development and Participation*, Oxford: Oxford University Press, 2002, p.44.

¹¹⁵ Kapila, "Indian Economy at Independence", p. 43.

implementing liberal economic policies, as a result of which restrictions on imports were softened, public institutions were restructured, and tax reform was realised.

The Ninth (1997-2002) five-year plan focuses on equal income distribution and poverty reduction, as well as privatisation of the economy, making foreign investments attractive and reducing budget deficits¹¹⁶. In this period, especially with the rapid expansion of the internet age and the fact that India has become a power in the world in the field of brain and information power in the field of technology, preliminary opportunities have emerged for the pursuit of economically serious sustainable policies¹¹⁷. In addition to all these, grants, technical support and loans were received from Japan in 1998; all these supports were used for infrastructure works, investments for poverty alleviation and environmental protection¹¹⁸.

In the Tenth (2002-2007) five-year plan, the government set a growth target of 8%. In this context, the main objectives were to reduce poverty to 1/5 level, increase forest areas to 1/4 of the country, and provide electricity and water to the whole country and especially all rivers throughout the country¹¹⁹. After this plan, all the programs and targets are now a sustainable economic plan and a turning point for the state to implement. To draw attention to the sectors that can create the most employment since this period; moves to improve agriculture through more extensive innovation and investment; investments and observations in the construction, tourism, transport and retailing system are preliminary initiatives for the future and transition to a sustainable development program¹²⁰. The government, which aims at an average growth rate of 8% with the 12th plan¹²¹, announced that these plans would no longer be made and the transition to wider sustainable economic development plans will be realised with the announcement of the Make in India program and the transfer of the planning commission's duties.

The period of 2003-2004 was a period of great increase in GDP in India in terms of economic development. Restructuring measures by domestic industry, overall

¹¹⁶ Mohan and Kapur, "Pressing the Indian Growth Accelerator: Policy Imperative", p.282.

¹¹⁷ *Ibid.*

¹¹⁸ Livemint, *A short history of Indian economy 1947-2019: Tryst with destiny & other stories*, August 14, 2019 (<https://www.livemint.com/news/india/a-short-history-of-indian-economy-1947-2019-tryst-with-destiny-other-stories-1565801528109.html>) Last Access: 03.02.2021

¹¹⁹ Kapila, "Pressing the Indian Growth Accelerator: Policy Imperative", p.178.

¹²⁰ M. Suresh Babu, *Hastening Slowly: India's Industrial Growth in the Era of Economic Reforms*, Hyderabad: Orient Black Swan, 2018, p. 17.

¹²¹ <http://archive.indianexpress.com/news/national-development-council-approves-12th-five-year-plan/1051012/> Last Access: 04.02.2021

reduction in domestic nominal and real interest rates, fiscal consolidation, improved corporate profitability, a benign investment climate, strong global demand, and easy global liquidity and monetary conditions all contributed to the high growth during 2003-2008¹²². Growth has been achieved in this period as a result of the market acceleration and investments in Agriculture, Industry and Services fields starting from the previous period. It is also important that the government's monetary policies could succeed in containing inflation during the last period, despite an unprecedented volume of inward capital flows. This was facilitated by the multiple instrument approach, including innovations such as the market stabilisation scheme that was used to sterilise the impact of large and volatile capital flows¹²³. Infrastructure investment was also stepped up by about one per cent GDP over the period, with increased divided equally between the public and private sectors, thereby increasing the share of private sector investment in infrastructure¹²⁴.

It can be said that the period of 2012-2014, contrary to the period previously announced, is a period of great economic recession for India. Researchers conducting research in this area are of the opinion that the rise of the previous period brought creative destruction in this period. The working paper published by Kapur and Mohan in 2014, summarises this period. According to them, they attribute the decline in this period to some reasons. Firstly, while macroeconomic policy response to the North Atlantic Financial Crisis (NAFC) – both monetary and fiscal policies- was admirably rapid, there was, which sowed the seeds for inflation and current account pressures¹²⁵. The efficiency of monetary policy to deal with inflation in this period was blunted by the persistent inflation in food items, which required monetary policy to be in a relatively tighter mode for a longer period¹²⁶.

Second, the fiscal is focused on tax cuts and increased revenue expenditure while keeping outlays stagnant, added to demand pressures. The growth recovery in 2003-2008 is reflected in the very large, unprecedented growth in the rate of government consumption. Third, the delayed and incomplete withdrawal of the fiscal

¹²² Rakesh Mohan and Munesh Kapur, "Pressing the Indian Growth Accelerator: Policy Imperative", *Indian Economy Since Independence*, Ed. Uma Kapila, 2019, p.271.

¹²³ Rakesh Mohan, *Growth with Financial Stability: Central Banking in an Emerging Market*, New Delhi: Oxford India Paperbacks, 2012, p.64.

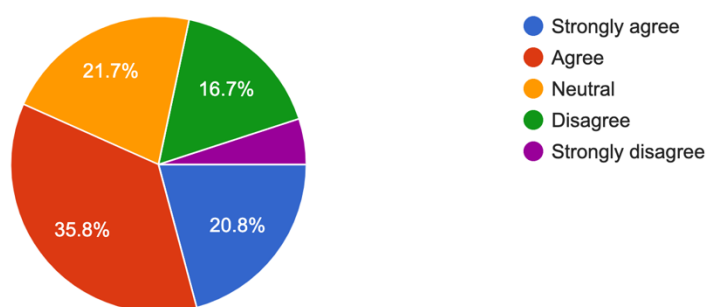
¹²⁴ Mohan and Kapur, "Pressing the Indian Growth Accelerator: Policy Imperative", p.274.

¹²⁵ Rakesh Mohan and Munesh Kapur, "Monetary Policy Coordination and the Role of Central Banks" *Working Paper*, New Delhi: International Monetary Fund, 2014, p.5.

¹²⁶ Rahul Anand, Ding Ding and Tulin Volodymyr, "Food Inflation in India: The role of Monetary Policy" *Working Paper*, New Delhi: International Monetary Fund, September 2014, p. 18.

stimulus led to crowding out of the private sector. The extraordinary growth in gross fixed capital formation observed in 2003-2008 almost halved in 2008-2012¹²⁷. Fourth, a key feature of the great slowdown in the near collapse of manufacturing growth in 2012-2014, which has been zero during this period, an almost unprecedented event for the Indian economy since independence. This is difficult to understand since, until 2012, manufacturing growth averaged in excess of eight per cent. By the middle of the 2010s, the euphoria about reforms got muted with economic growth distinctly lower than in the previous decade; domestic saving, investment, and capital inflows likewise trended downwards. Decelerating output growth affected corporates' earnings and hence their ability to service the enormous debt they had accumulated during the boom¹²⁸. Given the macroeconomic factors such as higher inflation, private sector crowding out, slowdown in global demand and real exchange rate appreciation, a slowdown would have been expected. As a matter of fact, the answers of the respondents in the questionnaire in which the adequacy of the solutions related to the question of whether the Make in India program only aims a sustainable development program or not, is tested in the survey.

The 'Make in India' program only aims at sustainable economic development.
120 responses



Graph: Question-6 in the Questionnaire

While 20.8% of the participants strongly agree with this opinion in the survey, which has participated by 120 people, 35.8% also agree with this opinion. However,

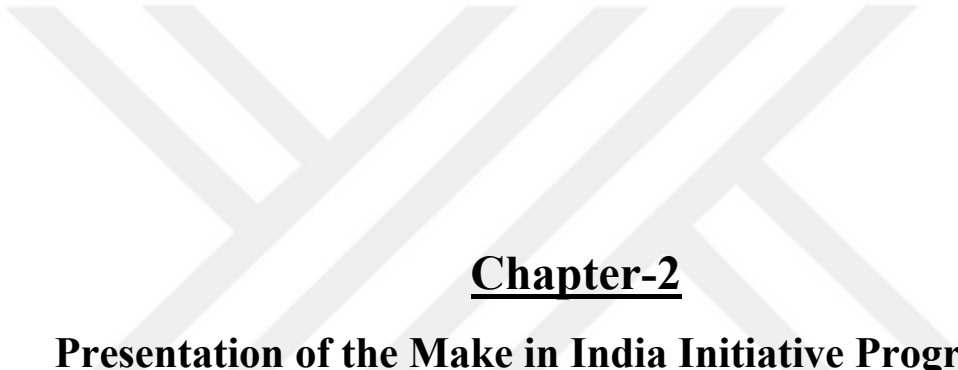
¹²⁷ Rakesh Mohan and Munesh Kapur, "Pressing the Indian Growth Accelerator: Policy Imperative", *Indian Economy Since Independence*, Ed. Uma Kapila, 2019, p.275.

¹²⁸ Rayaprolu Nagaraj, *Understanding India's Economic Slowdown*, Mumbai: The India Forum, October 26, 2020 (<https://www.theindiaforum.in/article/understanding-india-s-economic-slowdown>)
Last Access: 03.02.2021

21.7% of the participants remain neutral about this, while 16.7% do not agree with this view and 5% are completely disagree this opinion.

So, all these macroeconomic and policy developments contributed to the great slowdown during 2012-2014. To sum up, the key policy messages from the 2012-2014 slowdown reinforce the message from the 2003-2008 high growth phase: the need for prudent fiscal policy, a low and stable inflation environment, appropriate capital account management, maintenance of a competitive real exchange rate and a focus on infrastructure investment¹²⁹. The 2012-2014 period did not provide a political environment to overcome these problems. But with a bigger breakthrough, the new government announced a new program for a fundamental solution to these problems and stabilising sustainable development in the country: Make in India.

¹²⁹ Rakesh Mohan and Munesh Kapur, “Pressing the Indian Growth Accelerator: Policy Imperative”, p.276.



Chapter-2

Presentation of the Make in India Initiative Program and Domains of the Program being Launched

II. Presentation of the Make in India Initiative Program and Domains of the Program being Launched

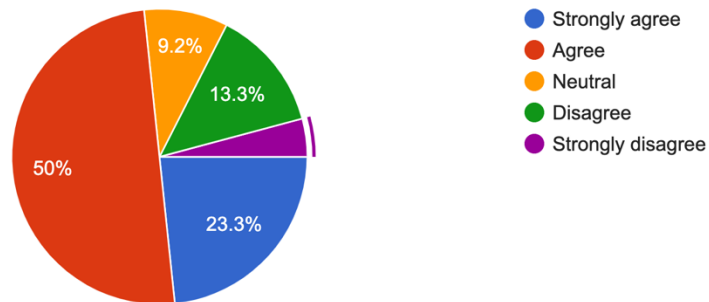
In general, the Make in India program is an innovation program announced by PM Modi in 2014 to increase the India's production level in the global area and develop the country. Within this program's scope, 25 sectors have been determined; advanced production is targeted both in these sectors, and it has paved the way for many facilities that expedite this production adventure, such as infrastructure services, development programs, start-ups, FDI policies, investment channels¹³⁰. This program's primary purpose is to increase the country's production in the GDP to 25%, provide employment and reduce unemployment, develop the backward regions of the country, and make India a global production force¹³¹. In the event that there is a lack of production or capital in the country among all these, it is aimed to support this program by getting support from foreign investors.

It is challenge for a country to sell what it produces with traditional management approaches. Both the opportunity cost and the overall cost of a manufactured product and the difficulty of fitting it in the market take its place in the development policies of new period's development policies. It is necessary to take the required production areas and steps to make the sector more functional in order to sell what it produces. Of course, it should be followed by supporting these steps with liberal policies and becoming open to the market globally by keeping diplomacy channels strong. In countries where there is no diplomacy and order, make production as much as you want. What is done in development and innovation is entirely empty. Today, especially the situation in Iran and the embargo they face support this phenomenon. At the heart of the word, these steps can be policies that increase the production country's volume of them by accelerating the paperwork in digital terms or with various incentives for investment in foreign direct investment. As a matter of fact, the answers of the respondents in the questionnaire in which the adequacy of the solutions related to unemployment is tested in the survey are also positive.

¹³⁰ Mahendra Panwar, *Make in India, Opportunities and Challenges*, New Delhi: Prajjwal Books, 2018, p.42.

¹³¹ *Ibid.* p.67.

The 'Make in India' program includes plans to address unemployment in India.
120 responses



Graph-1: Question-2 in the Questionnaire

As a result of the answers given to the question “The Make in India program includes plans to address unemployment in India”, the majority of the respondents find the Make in India program sufficient to solve the unemployment problem. Half of the 120 people participating in the questionnaire agree with this proposition, 23.3% strongly agree, and 9.2% favour the neutral. However, 13.3% of the respondents did not agree with this proposition, while 4.2% completely opposed it. Among the answers given, the answers given to the proposition that Make in India program contains unemployment reduction plans are generally positive.

It is not easy to make this cumbersome production system a global power, without any improvement from the past to the present and acting with its traditional method and idea structure. The Make in India program was not the first innovation program tried in India. In fact, the new initiative is the fourth attempt to promote manufacturing in India and form the solid foundation for Make in India:¹³²

Stage I for Make in India: The Raj Era

Stage II for Make in India: The Nehru Era

Stage III for Make in India: Rao to Manmohan Era

Stage IV for Make in India: Modi’s Plan

¹³² Sanjay Baru, *The Chequered History of Make in India and What Modi Must Do to Make it Work*, 04.02.2016 (<https://thewire.in/economy/make-in-india-is-all-about-pie-policy-infrastructure-enterprise>)
Last Access: 04.02.20201

- I. The Raj Era: The first phase of development in India was launched when the colonial government in Delhi took addressed Indian nationalist grievance concerning the lack of industrial development. The imperial government accepted a recommendation of the Fiscal Commission in 1922 to extend tariff protection to few Indian businesses as a measure of support to encourage localization of manufacturing¹³³. After the Second World War, as a result of the increase in industrial development policies, the increase in maritime trade and improvements in countries' customs duties, generally planned development moves were made in India for the first time in this period. Especially the foundation of shipbuilding and space works was laid in this period.
- II. The Nehru Era: This era, also called the Bombay Plan, proposed a state intervention for the economic development of the nation after independence after a group of businessmen. Although Jawaharlal Nehru did not accept this plan as official, Nehru followed an interventionist state and public policies during his rule. In this context, the summary of the Bombay plan was that the economy could not grow without government intervention and regulation¹³⁴. Because it was thought that the new Indian industry could not compete in the free market economy. Therefore, the plan offered to protect domestic industries from foreign competition in local markets. Although this plan, which is the determinant of the five-year development plans to date, has been criticized, it has been made an essential attempt in the period until the Make in India program.
- III. Rao to Manmohan Era: Along with the liveliness in the production activities in the 1980s, the interventionist attitude in the previous era left its place to the privatization policies in production in the 1990s. This received a policy boost in 1991-92 with Narasimha Rao's decision to end the infamous 'license-permit raj', to decontrol, deregulate and open up several

¹³³ Burhanuddin Shaikh, Garima and Mehmood Alam, "Make in India: A Brief", *Make in India- Policies: Issues and Challenges*, Ed. Masroor Ahmad Beg, Sanjay Kumar and Tariq Sayeed, New Delhi: Bharti Publications, 2016, p.72.

¹³⁴ Prabhat Patnaik, "On the Political Economy of Economic Liberalisation", *Social Scientist*, Vol.13, No.7/8, p.7.

manufacturing sectors to private investment¹³⁵. In addition, as a result of the government's incentives, profound breakthroughs occurred in various sectors such as automobile, plastic, consumer goods, medicine etc. Until today, the foundations of India's being a pioneer in the industry have been realized as a result of the government's incentive and support to the private sector¹³⁶. This production and increase prevented the increase in the 2000s as a result of the World Trade Organization signing a free trade agreement and China's policies and moves that marked the world trade.

IV. Modi Era: To add to this background of non-supportive policies, weak infrastructure and the difficulty of doing business at home, the new challenge for industrial development in India is the deterioration in the global economic environment and the emergence of new plurilateral trading arrangements like the Trans-Pacific Partnership.

All the arrangements and plans up to this period have emerged during periods of slow growth in world trade or increasing political demands for protectionism in developing economies. In addition, all the programs prior to Modi's plan were described as supply-side difficulties and problems but also steps to reduce both production and exports and prevent the growth of the domestic market. However, with the Make in India program, India has gained a global vision and announced that it will expand its development programs worldwide.

Prime Minister Modi's job was seriously difficult when it came to power for reasons such as irregularities in the tax order as a result of the unstable commercial balance bending towards the black market and the lack of various facilities for the Foreign Direct Investment, India's development policies from past to present and described as inadequate, inadequate infrastructure services for industry, laws within the country to make doing business seriously dysfunctional in the country.

As a result of all this, the first step towards the Make in India program was to announce NITI Aayog by announcing that the development agent will be closed¹³⁷. This

¹³⁵ Baru, *The Chequered History of Make in India and What Modi Must Do to Make it Work*.

¹³⁶ *Ibid*.

¹³⁷ Amitabh Kant, *Incredible India 2.0: Synergies for Growth and Governance*, New Delhi: Rupa, 2019, p. 14.

institution will make decisions faster and more functional, as it is a think tank and semi-independently from both the private and state structures. In this way, the first important step for determining the vision globally was taken in this way. The program was first announced in PM Modi's speech on Independence Day from ramparts of the Red Fort on August 15, 2014:

*"I want to appeal all the people world over, from the ramparts of Red Fort, "Come, make in India", "Come, manufacture in India". Sell in any country of the world but manufacture here. We have got skills, talent, discipline, and determination to do something. We want to give the world a favourable opportunity that comes here, "Come, Make in India" and we will say to the world, from electrical to electronics, "Come, Make in India", from automobiles to agro value addition "Come, Make in India", paper or plastic, "Come, Make in India", satellite or submarine "Come, Make in India". Our country is powerful. Come, I am giving you an invitation."*¹³⁸

Launched by Prime Minister Narendra Modi on September 25, 2014, the Make in India program was held in Vigyan Bhavan in New Delhi to increase the attractiveness of India as an investment centre. Leading entrepreneurs and CEOs of nearly 3000 companies from 30 countries attended the opening¹³⁹. Coming right after the successful insertion of Mangalyaan - a wholly indigenously built low-cost probe into the Martian orbit - the event highlighted India's success in manufacturing, science, and technology, and all this at inexpensive costs. It also came just a day ahead of the Prime Minister's maiden US visit¹⁴⁰. Law Minister Mr. Ravishankar Prasad and Commerce Minister Ms. Nirmala Sitharaman were part of the occasion. Apart from them, a number of corporate with deep roots in the country also spoke at the occasion. These include - Mr. Cyrus Mistry (Chairman, Tata Sons), Mr. Kenichi Ayukawa (MD and CEO, Maruti Suzuki India), Mr. Mukesh Ambani (Chairman & Managing Director, Reliance Industries), Mr. Azim Premji (Chairman, Wipro Limited), Mr. KM Birla Chairman, Aditya Birla Group), Ms. Chanda Kochchar (MD & CEO, ICICI Bank), Mr. Phil Shaw (CEO,

¹³⁸ <https://www.indiatoday.in/india/story/narendra-modi-independence-day-speech-full-text-red-fort-204216-2014-08-15> Last Access: 04.02.2021

¹³⁹ M.K. Singh and R. Ranjan, *Make in India; Initiatives and Challenges*, New Delhi: Prashant Publishing, 2015, p. 111.

¹⁴⁰ *Ibid.*

Lockheed Martin), and Mr. YC Deveshwar (Chairman, ITC)¹⁴¹. In addition, the government has announced the website www.makeinindia.com and continues to announce all work areas to be done here. In this way, it not only announces all investments and innovations from a single source but also provides a flow of information to guide future investors and facilitate their business. At the same time, it shows the transparency of the government by sharing all the information including the reports of all the campaigns conducted.

As declared by the Commerce Minister, Nirmala Sitharaman, “Make in India is not a slogan but a mission to be accomplished by a single-minded commitment about new processes”¹⁴². It aims to boost manufacturing and creating 100 million jobs over the next decade and bringing manufacturing up to 25 percent of Indian GDP. If this campaign were to propel the growth, its manufacturing sector would need to maintain its cost advantage in this environment of fierce competition¹⁴³.

The logo is a striding lion made of cogs, symbolizing manufacturing, strength and national pride. The national emblem, Ashok Chakra, also has four lions. In Indian folklore, the lion denotes the attainment of enlightenment, besides representing power, courage, pride, and confidence.¹⁴⁴ It is designed by Weiden+Kennedy, one of the largest independently owned advertising agencies in the world.

In this section, it will be explained in detail the steps taken for the Make in India program in the process until today. In general, it will be detailed this innovation program under three main headings: New Initiatives, Foreign Direct Investments, and Intellectual Property Rights. In New Initiatives section, all the plans, programs and the steps taken by the government within this innovation program will be detailed. Section for Foreign Direct Investments, it will be discussed the FDI program in India and decisions within the Make in India program. In section Intellectual Property Rights, within this program, Intellectual Property Rights will address policies and programs that protect the products of intellectual labour of economic value.

¹⁴¹ *Ibid.*

¹⁴² <https://www.thehindu.com/news/national/narendra-modis-make-in-india-campaign-in-delhi/article11148787.ece> Last Access: 06.02.2021

¹⁴³ Refia Wiquar, “Make in India: Dawn or Revamp”, *Make in India- Policies: Issues and Challenges*, Ed. Masroor Ahmad Beg, Sanjay Kumar and Tariq Sayeed, New Delhi: Bharti Publications, 2016, p.95.

¹⁴⁴ *Ibid.*

II.I. New Initiatives

Within the scope of the Make in India program, New Innovation Policies and Initiatives can be examined under four main topics. The first one is New Processes; The Government's Digital India Program, Atal Mission for Rejuvenation and Urban Transformation, Swachh Bharat Abhiyan, Skill India, The Smart Cities Mission and programs announced for the country's development include Ease of Doing Business and ongoing policies and reforms. The second part is the New Infrastructure. In this part, other programs and campaigns such as Industrial Corridors, Railway Projects, Doubling of Network of Roads, Sagar Mala Project implemented within the Make in India program will be discussed. The third part, New Sectors, will be concerned with the 25 sector details that the government has created a development program and encouraged for investment, which form the basis of the Make in India program. In the last part, New Mindset, the new perspectives brought by the government to all the development policies and programs, the steps were taken by the government to facilitate the investors, the incentives and conveniences the government has brought in this program will be discussed.

II.I.I. New Processes

Within the scope of the Make in India program, the government has taken steps to facilitate a sustainable development policy of this program by both opening the way for foreign investment and announcing breakthroughs and innovations that facilitate the business of companies in the trade. Especially in terms of the operation of the commercial system and increased production, these new processes are of great importance.

II.I.I.I. Digital India

Digital India is a movement led by the Indian government to transform this country into a digitally driven society. The aim of launching this initiative is to provide electronic

government services to Indian people by reducing paperwork¹⁴⁵. It is planning to be a very efficient and effective technique that will save time and workforce to a considerable scope. Digital India was started on 1st July 2015 for connecting people of rural areas with high-speed internet networks to access all information that they needed¹⁴⁶. It is the program that will benefit both, service providers and consumers. There is an arrangement of digital India advisory group chaired by Ministry of Communication and IT, in order to monitor and control of Digital India. When the government announced this program, it announced that there are three important issues related to this program and that it will make arrangements in these areas: Digital Infrastructure, Digital Literacy, Delivering services digitally all over the country. In addition, the government announced 3 visions under the Digital India program:

1. High speed internet as a core utility shall be made available in all Gram Panchayats,
2. Cradle to grave digital identity- unique, lifelong, online and authenticable,
3. Mobile phone and bank account would be enabling participation in digital and financial space at individual level,
4. Easy access to a Common Service Centre within their locality,
5. Shareable private space on a public cloud
6. Safe and secure cyber-space in the country¹⁴⁷.

A. Governance and Services on Demand:

1. Seamlessly integrated across department or jurisdictions to provide easy and a single window cases to all persons,
2. Government services available in real time from online and mobile platforms,
3. All citizen entitlements to be available on the cloud to ensure easy access,
4. Government services digitally transformed for improving ease of doing business,
5. Making financial transactions above a threshold, electronic and cashless,

¹⁴⁵ Manoj Kumar and Suman Kannoujia, "Digital India: Transform India in Digitally Empowered Society and Knowledge Economy", *Make in India; Turning Dream into Reality*, Ed. R.P. Shukla and R.S. Mishra, New Delhi: Bharti Publications, 2016, p.75.

¹⁴⁶ <https://www.digitalindia.gov.in/content/vision-and-vision-areas> Last Access: 06.02.2021

¹⁴⁷ *Ibid.*

6. Leveraging GIS for the decision support system and development¹⁴⁸.

B. Digital Empowerment of Citizens:

1. Universal digital literacy,
2. All digital resources universally accessible,
3. All government documents/ certificates to be available on the cloud,
4. Availability of digital resources/ services in Indian languages,
5. Collaborative digital platforms for participative governance
6. Portability of all entitlements for individuals through the cloud¹⁴⁹.

However, in the slides and conference papers published by the government, it is emphasized that Digital India will be the solution to nine pillars of growth areas:

1. Broadband Highways,
2. Universal Access to Mobile Connectivity,
3. Public Internet Access Programme,
4. E-Governance: Reforming Government through Technology,
5. E-Kranti- Electronics Delivery of Services,
6. Informal for all,
7. Electronics Manufacturing,
8. IT for Jobs,
9. Early Harvest Programs¹⁵⁰.

According to the June-2019 reports of the site internetworldstats, analysed with data from Mckinsey and Facebook, 60% of the population of India does not even have internet access¹⁵¹. Also, the report, titled “Offline and Falling Behind: Barriers to Internet Adaptation” has constructed an ‘Internet Barrier Index’ assessing the obstacles to Internet access in 25 countries¹⁵². But on the contrary, the same report also states that

¹⁴⁸ *Ibid.*

¹⁴⁹ <https://www.digitalindia.gov.in/content/vision-and-vision-areas> Last Access: 04.02.2021

¹⁵⁰ <https://digitalindia.gov.in/content/broadband-highways> Last Access: 04.02.2021

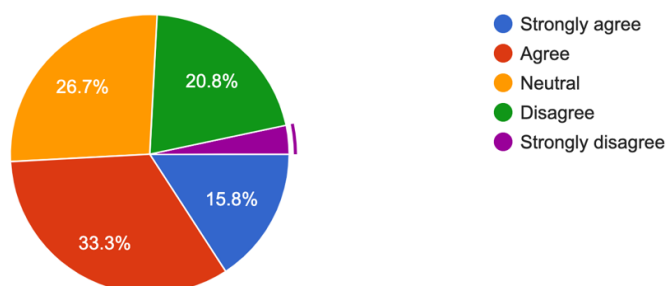
¹⁵¹ For Statistics: <https://www.internetworldstats.com/stats.htm> Last Access: 04.02.2021

¹⁵² Mckinsey&Company, *Offline and Falling Behind: Barriers to Internet Adaptation Report*, New Delhi: Mckinsey&Company Publishing October 2014, p.43.

India has the cheapest internet tariffs. The answers to the question in the questionnaire related to digital infrastructure works are as follows;

The digital infrastructure works planned within the scope of the 'Make in India' program are sufficient.

120 responses



Graph-2: Question-4 in the Questionnaire

While 15.8% of the 120 people participating in the survey strongly agree with this opinion, 33% agree with this it. 26.7% of them neutral from this view. However, while 20.8% of the respondents disagree with this view, 3.3% strongly disagree.

To sum up, The Digital India program is a great opportunity to develop the digital backbone in India. Today, most Indians hold email accounts with Gmail, Hotmail, and Yahoo etc along with using messaging services like WhatsApp, which all run servers located outside India. This makes all individuals and by extension, the country, vulnerable to surveillance and privacy breach¹⁵³. The fact that both the digital environment is not safe, and the importance of digitalization has increased significantly in the development of the country's economy has revealed the importance of the Digital India program. In this context, Digital India has an important role in making the Make in India program more functional and efficient.

II.I.I.II. Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and The Smart Cities Mission

AMRUT, which plans to transform a total of 500 cities and towns into an efficient urban living space, is planned to invest 50,000crore to invest in the development of these

¹⁵³ Duryodhan Gurdial Sigh, "Make Digital India", *Make in India: Destination 'Made in India'*, Ed. Rakesh Kumar Gupta and Geeta Bansal, New Delhi: Bharti Publications, 2015, p. 28.

regions by the end of 2020¹⁵⁴. Within the scope of this program, 100 Smart City Mission was also processed simultaneously. These two programs are very interconnected. It focuses on the urban infrastructure development that India needs to be a developed country within the scope of social development.

The number of cities covered by AMRUT has a wider reach at The Smart Cities Mission. Due to this situation, the funds allocated to each city in the AMRUT project is less than that of The Smart Cities Mission. Within the scope of AMRUT, it is planned to develop special infrastructure services such as expanding clean drinking water supply, improving sewerage networks, developing waste separation system, placing drains for rainwater, improving public transportation services and creating green public spaces such as activity areas and parks for children¹⁵⁵. In this context, 500 cities and towns have been determined. Population, tourist density, cities around the main river branches, certain popular hill towns and some elite islands are planned to be taken into consideration when determining these cities¹⁵⁶. AMRUT is actually a slightly expanded version of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) development program that existed in the past. It is even planned to support JNNURM programs that will continue until 2017 with the AMRUT program¹⁵⁷.

The Smart Cities Mission plans to build cities that incorporate technology and develop the entire ecosystem on its own. It can help increase transparency and reduce corruption with the help of real-time monitoring of systems and resources and simplify governance by eliminating intermediaries¹⁵⁸. It is planned to invest 100crore in each of these cities, which are planned to establish the entire ecological balance, from urban services to infrastructure services, from the wastewater system to producing its own energy¹⁵⁹. In this context, it proposes a field-based approach for development, which includes strengthening or redevelopment according to the Local Area Plan due to the

¹⁵⁴ Gaurav Dwivedi, *Smart Cities Mission in India; Footprints of International Financial Institutions*, New Delhi: Centre for Financial Accountability, June 2019, p.8

¹⁵⁵ *Ibid.*

¹⁵⁶ Government of India Flagship Scheme, AMRUT, *Current Affairs*, December 2019
(<https://www.gktoday.in/current-affairs/goi-flagship-scheme-amrut-extended-by-2-years/>)
Last Access: 04.02.2021

¹⁵⁷ Debolina Kundu, "Urban Development Programmes in India: A Critique of JNNURM", *Social Change*, Vol.44, No.4, 2014, p. 620.

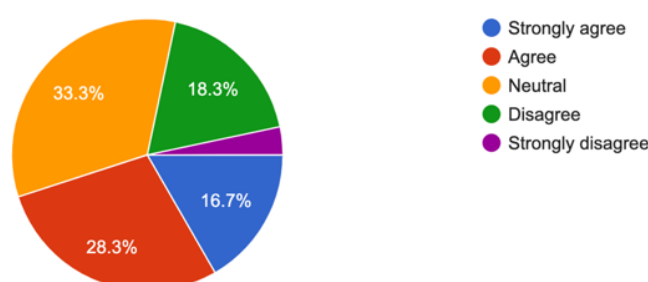
¹⁵⁸ Kaur Kamaljeet, Mahajan Geeta and Brato Rauth, "Designing Smart Cities Using Sustainable Development Model", *Make in India Through Sustainable Development: Achieving Inclusive Growth*, Ed. Vikash Nath, Brato Rauth, Vikash Nath, R.K. Sharma, A.S. Rao, Broto Rauth Bhardway, Mahesh Kumar Chaubey, Triti Tiwari, New Delhi: Bharti Publications, 2016, p. 330.

¹⁵⁹ *Ibid.*

differences in the ecosystem and changes in the development degree of each city. While the retrofitting activities within the scope of this mission focus on removing the deficiencies in the infrastructure, redevelopment focuses on the reconstruction of areas where the existing infrastructure cannot be transformed¹⁶⁰.

The target, which is planned to be achieved in the Smart Cities Mission, is to become self-sufficient in terms of clean drinking water, to provide green and sustainable living cities that include all aspects of urban infrastructure, with smart public transportation systems, planned city structuring, which can satisfy all of their basic production needs¹⁶¹. If this mission is seriously successful and sustainable cities can be created, an important step will be taken for a green and sustainable urban infrastructure nationwide. The answers to the question in the questionnaire related to infrastructure works are as follows;

The infrastructure works planned within the scope of the 'Make in India' program are sufficient.
120 responses



Graph-3: Question 3 in the Questionnaire

As a result of the questionnaire, 16% of the respondents completely agree with this opinion, 28.3% agree and 33.3% have neutral. However, 18.3% of the respondents do not agree with this opinion, while 3.3% strongly disagree this opinion completely.

II.I.I.III. Swachh Bharat Mission

The Swachh Bharat is the mission that covers the whole of the campaigns carried out by the Indian government to ensure cleanliness in cities and villages. The Swachh Bharat Mission, which was advertised as a gift campaign to Gandhi's 150th birthday,

¹⁶⁰ What is Smart city? (<http://smartcities.gov.in/content/>) Last Access: 04.02.2021

¹⁶¹ Dwivedi, *Smart Cities Mission in India; Footprints of International Financial Institutions*, p.8.

aimed to significantly increase the general public health and aimed to create areas for meeting the basic water needs of the households in the villages, functional water supply and toilet access¹⁶². Within the scope of this mission, it was planned to clean the environment from fetid odours and unhealthy environments by supporting a clean and organized environment in cities, toilet access in public areas, and supporting the sewerage infrastructure in cities under the Clean India mission¹⁶³.

In developing countries, like India, waste management is always been a major problem. Faced with rapid population growth, disorganization of city governments, a lack of public awareness and limited funding for programs, cities have struggled for years to find a way to manage the country's ever-increasing amount of trash responsibly. The Central Public Health and Environmental Engineering Organization (CPHHEO) estimated that waste generation in India could be as much as 1.3 pounds per person per day¹⁶⁴. That figure is relatively low, compared to the 4.6 pounds of waste generated per person per day in the U.S. However, as of July 2009, the US population was nearly four times greater, at 1.2 billion¹⁶⁵. According to a World Bank Report in 2013, there are around fifty three percent of households in India that practice open defecation¹⁶⁶. It also highlighted that lack of toilets as one of the reasons for high malnutrition in India. In 2014, Prime Minister Narendra Modi launched the Clean India Mission. It has got merged with the previous Nirmal Bharat Abhiyan¹⁶⁷.

As of 2020, it was announced on the official website¹⁶⁸ of the Swachh Bharat Mission that the program was successful, and the specified numbers were reached¹⁶⁹. This mission was one of the most important programs for the government within the scope of the liveable environment social responsibility projects in the Make in India program. As a matter of fact, the construction of toilets even on the edges of major main roads, even the Prime Minister Modi's collecting the litter on the 45 min coast

¹⁶² Bindeshwar Pathak, "Swach Bharat Mission Lays the Foundation of Change", *Making of New India: Transformation Under Modi Government*, ed. Bibek Debroy, Anirban Ganguly and Kishore Desai, New Delhi: Wisdom Tree, 2018, p.298.

¹⁶³ *Ibid.*

¹⁶⁴ Pankaj Morajkar, Vikrant Bhor, Dishant Pandya, Amol Deshpande and Maheshwar Gurav, "Smart Garbage Management System", *International Journal of Engineering Research and Technology*, 2015, p. 2

¹⁶⁵ Shobha Jain, *Make in India: Needs and Importance*, New Delhi: Kunal Books, 2017, p. 45.

¹⁶⁶ *Ibid.*

¹⁶⁷ Shekhar Shweta, "Swachh Bharat Abhiyaan; A Critique of the Clean India Mission (Rural)", *A research paper submitted for Master of Arts*, Bengaluru: National Law School of India University, September 2017. p. 7.

¹⁶⁸ www.swachhbharatmission.gov.in, Last Access: 04.02.2021

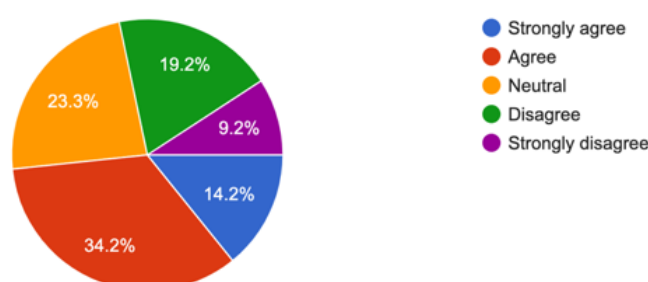
¹⁶⁹ www.sbm.gov.in/sbmdashboard/ihhl.aspx, Last Access: 04.02.2021

individually and asking for support for the campaign and organizing regional campaigns to support this project were effective in this success¹⁷⁰.

II.I.I.IV. Skill India

Skill Development is an important force that increases employment, increases the productivity and quality of production, increases the education level of the labour force required for the development of a country and reduces unemployment¹⁷¹. In this respect, both unemployment and the lack of skilled workers in the industry have pushed the Indian government to add a mission in this way under the Make in India Initiative program. Indeed, for the employment sector in India, informal workers, high levels of underemployment, shortage of skills and strict labour laws are factors that prevent the Make in India Initiative program from working in the field of production. In this context, Skill India is a campaign created in 2015 to train skilled workers in different industries¹⁷². The vision of this program is to create a strengthened workforce class by 2022. Also, the answers to the question in the questionnaire related to Skill India are as follows;

The scope of the 'Make in India' program is sufficient for India's workforce quality.
120 responses



Graph: Question-8 in the Questionnaire

While 14.2% of the participants strongly agree with this opinion in the questionnaire, which was participated by 120 people, 34.2% of them also agree with it. However,

¹⁷⁰ <https://swachhbharatmission.gov.in/sbmcms/index.htm> Last Access: 06.02.2021

¹⁷¹ Christopher Finnigan, *Has Modi's Swach Bharat campaign been a success?* 16 Mart 2019 (<https://blogs.lse.ac.uk/southasia/2019/05/16/has-modis-swachh-bharat-campaign-been-a-success/>) Last Access: 06.02.2021

¹⁷² www.skillindia.gov.in/, Last Access: 04.02.2021

23.3% of the participants remain neutral on this issue, 19.2% disagree with this view and 9.2% are strongly disagree this view.

According to the Ministry of Skill Development and Entrepreneurship (MSDE)'s Mission Report, key institutional mechanisms for achieving the objectives of the Mission have been divided into three tiers, which will consist of a Governing Council for policy guidance at apex level, a Steering Committee and a Mission Directorate (along with an Executive Committee) as the executive arm of the Mission. Mission Directorate will be supported by three other institutions: National Skill Development Agency (NSDA), National Skill Development Corporation (NSDC), and Directorate General of Training (DGT) – all of which will have horizontal linkages with Mission Directorate to facilitate smooth functioning of the national institutional mechanism¹⁷³. Seven sub-missions have been proposed initially to act as building blocks for achieving overall objectives of the Mission. These are:

- Institutional Training
- Infrastructure
- Convergence
- Trainers
- Overseas
- Employment
- Sustainable Livelihoods

Leveraging Public Infrastructure.¹⁷⁴

In a globalized economy, a large pool of skilled workers is indispensable for attracting foreign direct investment¹⁷⁵. Developing skilled workers enhances the efficiency and flexibility of the labour market; skills bottlenecks are reduced, skilled workers are more easily absorbed into the economy, and their job mobility is improved¹⁷⁶. It is crucial to invest in quality secondary and tertiary education and in vocational education and training if India's economy is to develop and remain competitive in world markets¹⁷⁷.

¹⁷³ Ministry of Skill Development and Entrepreneurship (MSDE), 2016, (<https://www.msde.gov.in/nationalskillmission.html>) Last Access: 04.02.2021

¹⁷⁴ <https://www.msde.gov.in/nationalskillmission.html> Last Access: 04.02.2021

¹⁷⁵ P Sikka, *Make in India: Flagship Programme of India Government*, New Delhi: N.B. Publications, 2018. p.79.

¹⁷⁶ Ibid.

¹⁷⁷ Rakesh Kumar Gupta and Lipika Bhardwaj, "Role of Education on Skill Development in India", *Make in India: Retrospectives and Perspectives*, Ed. Rakesh Kumar and Geeta Bansal, New Delhi: Bharti Publications, 2015, p.108.

Today, India's current skilled labour force rate is around 5%.¹⁷⁸ Especially in the developing countries such as China, South Korea, South Africa, Brazil and Turkey, it can be said Skill labour rates are significantly high. In order to overcome the gap between academic education, skill and employment, and thereby increase the impact of the production factor on the Make in India Initiative program, all within the scope of the Skill India program, as shown by the government's vision program, both within the scope of academic education, trainers or factories seeking qualified workers in factories¹⁷⁹. Around 119 million additional skilled work force will be required in India by 24 sectors such as construction, retail, transportation, logistics, automobile, and handloom by 2022, says a government report¹⁸⁰. According to the skills-gap report commissioned by National Skill Development Corporation, most of the sectors except agriculture will require more skilled workforce in the next seven year¹⁸¹. Within this context, it is expected to increase employment and progress in all areas such as Sustainable Livelihoods and Leveraging Public Infrastructure.

To sum up, there is an incremental requirement for about 5.8 million teachers and trainers till 2022. A portion of this requirement would be driven by industry demand- as in the case of Vocational Training. Also, there would be an increasing requirement for Higher Education as demonstrated by increase in enrolment rates into Higher Education¹⁸². According to the latest India Skill Report (2019), only 46% of students who graduate from educational institutions can be employed. This has contributed to the government's creation of the Skill India program to address non-compliance and improve the efficiency of development policies¹⁸³. Given all this, Skill India can be described as an innovative start-up initiative planned for the development of the country, as well as to increase production.

¹⁷⁸ *Ibid.*

¹⁷⁹ *Ibid.*

¹⁸⁰ *India will need 119 million more skilled workers by 2022*, 10 April 2015
<https://economictimes.indiatimes.com/jobs/cybersecurity-job-postings-rise-16-per-cent-in-january-report/articleshow/80709569.cms> Last Access: 06.02.2021

¹⁸¹ P Sikka, *Make in India: Flagship Programme of India Government*, p.11.

¹⁸² Prabhjot Kaur, "Contribution of HRD in Skilling a New India", *Make in India: Destination 'Made in India'*, Ed. Rakesh Kumar Gupta and Geeta Bansal, New Delhi: Bharti Publications, 2015, p.181.

¹⁸³ *India Skill Report-2019*, New Delhi: Wheebox, 2019
https://wheebox.com/static/wheebox_pdf/ISR_Report_2019.pdf Last Access: 04.02.2021

II.I.I.V. Ease of Doing Business

Prepared by the World Bank since 2004, Doing Business Rank is a reporting index that points to the investment opportunities of member countries and shows business regulations. An important indicator of the business environment on a global scale, Doing Business Rank shows the scoring, which is the average of 190 member countries' analysis and reports and indexes in the specified areas. India, which became a member according to this index in 2008, made important reforms especially within the scope of the Make in India program and as a result of these reforms, it moved from 134th in 2013 to 63rd in 2020¹⁸⁴.



Figure 1: Doing Business Parameters¹⁸⁵

The parameters considered for ranking a country are:

- Starting a Business; Processes, time, cost and initial capital required to start a business.
- Dealing with construction permits; Processes, time and cost required to set up a business construction.

¹⁸⁴ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, New Delhi: Parragon Publishing, 2018, p.175.

¹⁸⁵ <https://www.doingbusiness.org/en/custom-query> Last Access: 04.02.2021

- Getting electricity; Processes required to draw electricity to the newly built business, time and cost.
- Registering property; Business Registration Processes and Time Costs.
- Getting credit; Credit Processes.
- Protecting minority investors; The level of openness, the level of financial liability and the protection of stakeholders' rights.
- Paying taxes; Amount of tax paid, Hours spent annually for tax refunds.
- Trading across borders; Number of documents required for import and export, cost and time.
- Enforcing contracts; Required processes, time and cost for the loan agreement.
- Resolving insolvency; Time, cost and percentage of recovery for a bankruptcy issue¹⁸⁶.

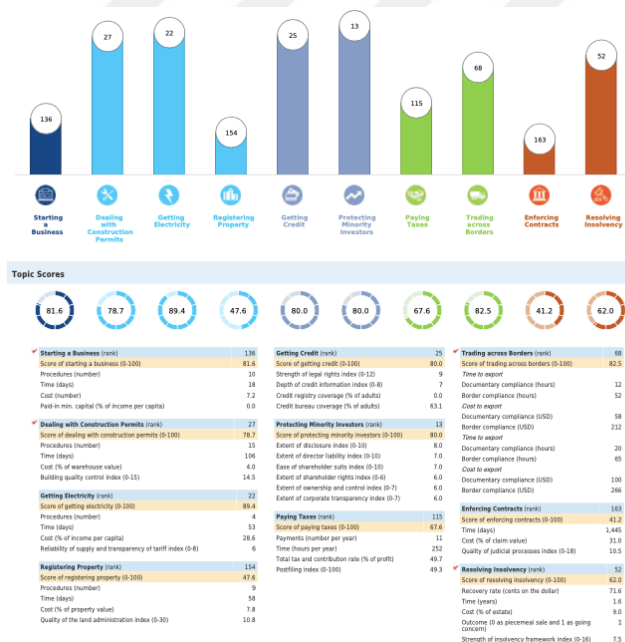


Figure 2: Rankings on Doing Business topics - India -2020¹⁸⁷

Apart from the Enforcing Contracts and Registering Property parameters within the Make in India program, India, which has taken very serious initiatives both in the central government and in the states, has rapidly fulfilled all the moves that led to decisions and investment. ‘Enforcing Contracts’ and ‘Registering Property’ did not sustain efforts because these reforms require concerted efforts by a host of public and

¹⁸⁶ Ibid.

¹⁸⁷ <https://www.doingbusiness.org/en/data/exploreeconomies/india> Last Access: 04.02.2021

private entities, beside legal amendments¹⁸⁸. With the implementation of many reforms like the Goods and Services Tax (GST) for reducing the burden of cascading taxes, amendments to the Insolvency and Bankruptcy Code (IBC) for faster resolutions, easier to licensing, and trading norms. The country's performance in terms of easing business regulations has been impressive. It has become a lot easier to obtain construction and licence permits, trading across borders, and other government approvals¹⁸⁹.

II.I.I.V.I. Xiaomi's Production Adventure in India and Its Overall Contribution to India

Xiaomi Corporation is a China-based electronics company. Producing in the field of smartphones, mobile applications, laptops, wearable technology and Internet of Things (IoT) and carrying out R&D studies in these areas, Xiaomi Corporation was founded in 2010 and has succeeded to be among the top five technology companies in the world in ten years.

Smartphones have become the main focus of technology since the early 2000s, as the use of smartphones has increased significantly in recent years, and the functionality of the phones has become a tool that meets our daily needs rather than being a "ringing" tool. Following the Technology IoT Congress held in Barcelona in 2016, signals were given that the production of technological products and R&D activities will focus on the "Internet of Things" sector rather than on the phone¹⁹⁰. The concept of IoT was first used in a presentation prepared by Kevin Ashton for the Procter & Gambler company in 1999¹⁹¹. In general, this term connects the sensors and communication systems with software, enabling one-hand control of all the vehicles we use in our daily lives. The primary purpose of this control is based on the ability of electronic devices to interact with each other without any human factor. The main goal of the Xiaomi company today is to be the most efficient, safest and the ablest to sell products in this sector and to increase its market share in line with these goals¹⁹².

¹⁸⁸ Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p. 180.

¹⁸⁹ Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p.34.

¹⁹⁰ Ovidiu Vermesan and Peter Friess, *Digitising the Industry; Internet of Things Connecting the Physical, Digital and Virtual Worlds*, Gistrup, Denmark: River Publishers, 2016, p.163.

¹⁹¹ Dries Guth, *How the "Internet of Things" Came to be*, 12 April 2018 (<https://itelligencegroup.com/us/global-blog/how-the-internet-of-things-came-to-be-read-the-whole-story-here/>) Last Access: 06.02.2021

¹⁹² Teresa Lam and Lucia Laung, *Xiaomi: from a Mobile and Technology Company to a Lifestyle and Retail Company*, Shanghai: Fung Business Intelligence, June 2018, p.7.

Xiaomi keeps its prices low or close to “bill-of-material” by keeping most of its products in the market longer, eighteen months rather than the six-month norm followed by many smartphone companies. This strategy allows Xiaomi to take advantage of price reductions in the prices of key components of its products. It enables the company to sell hardware with specifications comparable to high-end devices at a fraction of the cost¹⁹³. In this policy, the main target can be described as the existence of the Xiaomi brand in the market and efforts to ensure that it has a considerable share in the market. For this target, Xiaomi has developed a unique sales strategy.

The primary purpose of this strategy is to increase the word sales share in the market by reaching high sales figures by expanding its product range with its low-price policy, which it qualifies as low cost and good quality¹⁹⁴. The company officials are launching the “Triathlon Model” as the primary policy followed by the company Xiaomi to increase its product sales and increase its market share in this context. The triathlon model was comprised of three modules, namely, “Hardware”, “Software” and “Internet Services”. The company worked out its business model to incorporate the “Software” section to the “Internet Services” section and added the “New Retail” section. The triathlon model now entails three components: The Hardware, Internet Services and New Retail¹⁹⁵.

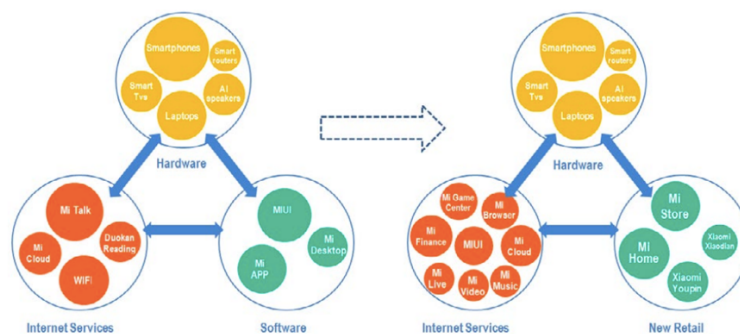


Figure 3: Evolving Triathlon Model of Xiaomi¹⁹⁶

The basic strategy implemented by Xiaomi company in the Indian market consists of this model. This model creates synergies by cross-selling services and products to users, through its innovative retail concept which involves direct online

¹⁹³ Tushar Menghani, *How Xiaomi is Dominating the Global Smartphone Market? Case-study of Xiaomi*, 24 May 2020 (<https://www.themarcomavenue.com/blog/how-xiaomi-is-dominating-the-global-smartphone-market/>) Last Access: 05.02.2021

¹⁹⁴ Lam and Leung, *Xiaomi: from a Mobile and Technology Company to a Lifestyle and Retail Company*, p.7

¹⁹⁵ *Ibid.*

¹⁹⁶ *Ibid.*, p.9.

sales to maximise efficiency and create a long-term direct digital relationship with the users¹⁹⁷. In addition to this model, the “Flash Sale” strategy for new products increases the interest of users for new products. With this applied strategy, the relationship of users with the company is developing, and users become fans of Xiaomi. Xiaomi India’s CEO, Mr Manu Kumar Jain, explains this situation with the “Maverick” terminology¹⁹⁸. He is the one who challenged the status quo by doing precisely the opposite of what other mobile brands were doing in India¹⁹⁹. With these implemented strategies, Xiaomi company reached huge sales figures in a short time. The limited-edition products, which were initially offered for sale, were sold out in online sales within minutes. All the electronic appliances which are going to be launched online first and then will be available in exclusive brand stores. The most innovative strategy of the company is its keen focus to create new revenue drivers²⁰⁰. In this policy, the main target is to enable Xiaomi company to adapt to the market better in India, to increase the number of customers and to increase its market share by expanding its product catalogue. All of these programs, goals and strategies started with the Xiaomi company started investing in India in 2014 within the scope of the Make in India Initiative program.

Until 2014, the main target of Xiaomi company in the Indian market was to import phones from China to India and sell their products in this market. The low-cost phones have reached outstanding sales figures, as expected, since its first launch. In 2016, India had become its second-largest source revenues after China. India was bound to play a significant role in making Xiaomi a global player²⁰¹. Indeed, while the smartphone penetration rate was set as 53.3% in China in 2016, there was much room for growth in India since the price was set at only 29.8%²⁰². These sales figures in India have continued to grow until today. The Indian market also served as attest ground for

¹⁹⁷ Rahela Tabassum and Ahmed Shehbaz, *Xiaomi Invades the Smartphone Market in India*, Decision, Vol.47, No.2, p.219.

¹⁹⁸ Rajiv Singh, *How China’s handset maker Xiaomi came first in India*, 26 November 2017 (<https://economictimes.indiatimes.com/tech/hardware/how-chinas-handset-maker-xiaomi-came-first-in-india/articleshow/61798368.cms?from=mdr>) Last Access: 05.02.2021

¹⁹⁹ Tabassum and Shehbaz, *Xiaomi Invades the Smartphone Market in India*, p.219.

²⁰⁰ *Ibid*, p.221.

²⁰¹ Jihan Chara, *Xiaomi in the MENA Region: A Potential Entry Strategy in Morocco*, Lovin School of Management, 2017, p.67

²⁰² *Smartphone Penetration as share of population in China 2015-2033*, Hamburg: Statista Research Department, 24 November 2020

(<https://www.statista.com/statistics/321482/smartphone-user-penetration-in-china/>) Last Access:05.02.2021

Xiaomi to determine how it had to adapt its business model for broader markets, keeping in mind the differences in e-commerce penetration and Internet literacy²⁰³.

Moreover, distribution intensity has a positive effect on aspects of Xiaomi mobile market as high distribution intensity expands the probability of buying decision wherever and whenever consumers want²⁰⁴. When Xiaomi entered the Indian market for the first time in 2014, it was selling the phones it manufactured in China. Participating in the Make in India campaign launched by the Indian government, Xiaomi decided to carry out the production and R&D activities of its products in India²⁰⁵. Xiaomi, which signed with Foxconn Cooperation for its R&D activities and the first factory to be opened in India, thus avoided both reducing production costs and the state's extra taxes on Chinese products. By 2016, 75% of the Mi phones sold in India were locally produced while Xiaomi announced plans to establish two additional factories in the country and invest in more R&D and data centres²⁰⁶.

Today, in the technology sector, there has been an increase of up to 20% in import taxes to close India's current deficit, especially with China and increasing domestic production²⁰⁷. However, under the Make in India program for domestic production, government assistance programs that will close the current account deficit and promote local production were announced. In 2016, the factory that Foxconn group established to sell the output in the Indian market with Xiaomi company was realised in line with these plans. Complying with the Indian government's policy enables Xiaomi to take full advantage of the labour potential of India. A labour force that has become ever more expensive over the past few years coupled with increased energy bills and the inflation of raw materials prices are enough to understand the eroding competitiveness of China as the primary manufacturing centre of the world²⁰⁸. On the other hand, India, with its raw materials and a relatively inexpensive active population

²⁰³ Anil K. Gupta and Haiyan Wang, *Why Xiaomi can't Succeed without India*, 29 June 2015 (<https://hbr.org/2015/06/why-xiaomi-cant-succeed-without-india>) Last Access: 05.02.2021

²⁰⁴ Aggasara, *A study of Marketing Mix Strategy of Xiaomi Mobile Phone in Yangon that Impacts on Making Decision towards Customer Satisfaction*, Bangkok: Siam University, School of Business, 2019, p.11.

²⁰⁵ Aggasara, *A study of Marketing Mix Strategy of Xiaomi Mobile Phone in Yangon that Impacts on Making Decision towards Customer Satisfaction*, p.11.

²⁰⁶ Chara, *Xiaomi in the MENA Region: A Potential Entry Strategy in Morocco*, Lovin School of Management, p.60.

²⁰⁷ *Ibid.*

²⁰⁸ Jae Hoon Hyun, *Emerging Multinationals in Emerging Markets: Xiaomi Experience in the Indian Smartphone Market*, 2 October 2016 (http://www.eamsa.org/wp/wp-content/uploads/2016/10/2_fjtgi.pdf) Last Access: 05.02.2021

aged 15-65 has remained an important manufacturing location so far, characteristics that also enable Xiaomi to maintain its price competitiveness on foreign markets²⁰⁹.

Xiaomi's general sales policy in China was on online sales channels. When they first came to the Indian market, they continued these strategies. The sales contract with Flipkart and sales with limited stocks, sales contracts with Amazon, Snapdeal and Paytm can be described as the summary of the first period sales. With the introduction of the Triathlon model in 2015, it was concluded that 'Offline Marketing' would increase sales²¹⁰. As a result of this opinion, Xiaomi products under the name of "Mi Store" started to be sold to the remotest corner of the country. In addition to this, in the farthest corner of India, where the company can't open a store as a location, sales representative and partnership certificate are started to be given to local phone sellers to increase the sales of the products. According to the Mobile Marketing Ecosystem (MME) Report 2020, as of mid-2018, India was second in internet usage, with 12% of the global internet user base²¹¹. As of Q1 2019, India has an active user base of 451 million while the internet penetration hovers over 36%²¹². The internet user base is the largest population segment has low internet penetration. So, there is an immense scope for growth which will be driven primarily by cheap mobile handsets and low tariff data²¹³. Local partnerships and data of mobile internet users from Xiaomi show that sales in the local regions will increase further in the coming period.

Xiaomi, which aims to increase its market share in India through these local partnerships, has also launched more than 100 customer centres in 2018 for technical support centre and 'user feedback', and data for the sustainability of the products it sells and R&D of its products²¹⁴. The main target in all these policies is to sell all products sold in the Indian market under the label "Made in India" and to ensure that the technological products they sell are culturally integrated with India. Furthermore, coupling offline with online marketing has also allowed the company to increase the

²⁰⁹ *Ibid.*

²¹⁰ Chara, *Xiaomi in the MENA Region: A Potential Entry Strategy in Morocco*, Lovin School of Management, p.67

²¹¹ *Mobile Marketing Association and GroupM Launch Mobile Ecosystem Report 2020*, 19 February 2020 (<https://www.groupm.com/mobile-marketing-association-and-groupm-launch-mobile-ecosystem-report-2020/>)

²¹² *Ibid.*

²¹³ *Ibid.*

²¹⁴ Tabassum and Shehbaz, *Xiaomi Invades the Smartphone Market in India*, p.231.

visibility and awareness of the brand among the Indian population²¹⁵. As a result, MIUI Forum was created in 2017 to analyse the sales and understand the localities more clearly. The main goal of this forum was to collect feedback from users and ideas and suggestions on product development and contribute to the development of next-generation products.

In addition to all these, Xiaomi company, which invested in India in the field of production and R&D within the scope of the Make in India program, to increase the competition in the domestic market by reducing the cost, and to eliminate the harmful air brought by Chinese products, was exempt from high import tax and to China and has taken an essential step towards production with lower costs. Besides, the use of domestic raw materials has been active in Xiaomi's decision to produce in India, since it is lower in value in all products manufactured in India. Today, the Indian market is the world's most smartphone manufacturer. In an interview with Business Today, Xiaomi India CEO stated that they plan to produce various products in the Indian market. Still, they have concerns about whether these products are suitable for Indian customers. Rather than bringing products like Drones, Xiaomi would like to focus on flexible sectors like electric cycles and vehicles²¹⁶.

SWOT Analysis of Xiaomi in India

SWOT; It consists of the initials of the words Strength, Weakness, Opportunity and Threat. SWOT analysis is the comparison of threats determined by external environmental analysis to internal company analysis to improve company policies²¹⁷. This analysis method is generally used to identify and enhance the market strategies of institutions. SWOT analysis enables the unit under review to develop market strategies to take advantage of opportunities around it or to take action against threats.

Organisations must meet the expectations of their environment to sustain their lives and improve themselves. Changes in the internal and external environment of

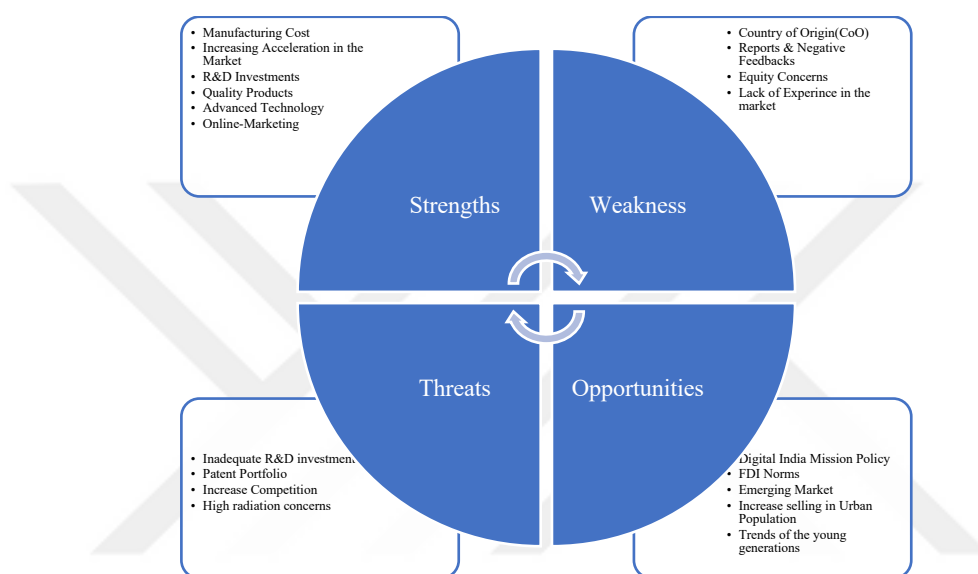
²¹⁵ Chara, *Xiaomi in the MENA Region: A Potential Entry Strategy in Morocco*, Lovin School of Management, p.61.

²¹⁶ Tabassum and Shehbaz, *Xiaomi Invades the Smartphone Market in India*, p.230.

²¹⁷ Terry Hill and Roy Westbrook, *SWOT Analysis: It's Time for a Product Recall*, Long Range Planning Press, Vol.30, No.1, February 1997, p. 49.

organisations sometimes confront an opportunity and sometimes a threat²¹⁸. At this point, SWOT analysis makes internal and external environmental analysis of the organisation, determining the current situation, revealing the organisation's strengths and weaknesses, opportunities and threats, making the organisations more adaptable to environmental conditions.

I can classify the SWOT analysis of Xiaomi for the Indian market with the following graph:



Strengths

Xiaomi moved some of its production and R&D divisions to the Indian market. As a result, it was exempt from the taxes imposed by the country on imported products and the extra charges applied for imported electronic equipment. Also, he started to use domestic raw materials for every electronic device produced in India. With this step, it significantly reduced production costs. Also, Xiaomi prefers to buy from other companies instead of producing various models for the smartphone. For example, it purchases camera sensors from Sony, the display panels from Sharp, and its processors from Snapdragon. This provides the opportunity to use both more cost-effective and highest technological spare parts in their devices by combining these parts with their

²¹⁸ Mukadder Boydan Ozan, Hakan Polat, Seda Gunduzalp and Zubeyda Yaras, "Egitim Kurumlarinda SWOT Analizi (The SWOT Analysis at the Educational Organizations)", *Turkish Journal of Education Studies*, Vol2. No.1, January 2015, p.4

technology instead of high-cost R&D. The decrease in production costs provides a severe positive effect on the prices of the products sold and to compete in the market.

Xiaomi has gained a severe momentum since its introduction in 2014. It has become an indispensable position in the market by making effective use of rapidly expanding sales channels and government innovation programs all over the country. Make in India policy pushed the company to open the production plant in India, and this is enabled the Xiaomi to target the local market and secure the price competitiveness by avoiding the tax burden, transportation cost and the by cutting the manufacturing cost²¹⁹.

Increasing the use of smartphones day by day has been an adequate opportunity for Xiaomi Company. Xiaomi, which has become the general preference of narrow and middle-income people, has increased the sales figures significantly with the widespread use of smartphones. Production costs of Xiaomi are generally more affordable than other firms in India. Also, the market policies pursued by Xiaomi significantly reduce the prices there. Also, Xiaomi determined the profit margin as 5%. So, whatever the cost of a product is only 5% profit. As a result of this, all the devices it sells are sold on average 50% cheaper, with low production costs.

In addition to all these, strengths of Xiaomi for the market can be listed as follows: the quality of every product it produces is better than other smartphones, the company's rising performance in sales channels, campaigns for online sales, fields for the production and R&D of all products they produce in India and to increase the interaction of the products with culture.

Weakness

Although Xiaomi has moved its production and R&D division for the Indian market, its launch as a Chinese product as Country of Origin (COO) can be described as the significant weakness of Xiaomi, especially the criticisms made to China during the Covid-19 period, the border tension between China and India and the propaganda on social media as a “copy of Apple” of Xiaomi company pose a severe threat for Xiaomi.

²¹⁹ Aibot Yasentemirov, Gulziya Aldashova, Bakitgul Zhaupova, Lazat Spankulova, Arailym Orazgaliyeva, Kuralay Balginova, Galym Mussirov, Zhamilya Kydyrova and Erlan Onlasynov, “The Role of Management Strategies for Start-Up Growth: A Case Study of Xiaomi Technology Company”, *Academy of Entrepreneurship Journal*, Vol.26, No.1, 2020, p.3.

Besides, there are various reports and negative feedback about the Xiaomi claims of low quality, limited-service availability. Also, the fact that Xiaomi is a new company compared to its competitors brings a lack of experience. This makes the company weak to take traditional protective measures.

Opportunity

Xiaomi has all the opportunities to penetrate the Indian market; one of the reasons is the Indian government regulations which is favourable for the Xiaomi's future development. "Digital India" policy that was undertaken by the Indian government is aimed to transform India into a high-tech country by introducing the digital infrastructure. Thus, having automated programs for all monetary transactions²²⁰. As a result, the increase in the use of smartphones in the countryside and Xiaomi to have a market policy for these areas are an excellent opportunity for Xiaomi. Also, the dependence of new generations on smartphones and technology is increasing day by day. The efficient market strategies implemented are that the needs of new generations will be more satisfying in this growing market.

Threats

R&D investments of Xiaomi in India are generally around 10%. Although the investments made by companies such as Lenovo and Oppo for R&D are much less than Xiaomi, but it is very close to Xiaomi. This means that if these companies follow all the policies of the Xiaomi in the future, they can increase their market shares and reduce their costs. It is a known fact that Realme company made investments in this direction. Also, keeping the profit margin of 5% of each product sold by Xiaomi may result in a severe economic crisis for the company in the future. Cost-effective smartphones from competing companies will affect the Xiaomi company, which has the largest market share today. Companies like Oppo, Vivo and Realme now produce smartphones under 10,000Rs. This situation threatens the most Xiaomi. Besides, Xiaomi company is still far behind in terms of patents compared to its competitors. The patent application by the Xiaomi company was 7153, but the number of Huawei's patent is 77042 and ZTE

²²⁰ *Ibid*, p. 5.

is 63707²²¹. This means that costs will increase even more when new technological products are produced. Limited patents can cause several problems to the Xiaomi, as Ericson law suited the company in India and as well as a lawsuit by Blue Spike in the US, as result ban on certain products ends up with the loss in revenue. Xiaomi smartphones are a threat to national security, and they transfer personal information through remote servers to China²²².

Findings

In order to reach its objectives in terms of market share, efficiency and revenues, Xiaomi chose the sole venture entry mode. At the same time, it adopted some aspects of its marketing to the Indian audience²²³. This situation encouraged Xiaomi company in the regional sense to domestic production with various strategies. According to Industrial Development Corporation (IDC) 2018, Xiaomi has already acquired 30.6% market share in the first quarter 2019; the company's future rests on how it capitalises the strengths and minimises its weakness to create sustainable competitive advantages²²⁴. All the strategies applied in the process from 2014 until today have enabled Xiaomi company to reach these figures.

Indian market is enormous to tap at one go, hence a narrowed segment to cater to initially which aspire for a great product but at the same time is financially very conscious regarding the pricing aspect²²⁵. With the Triathlon model, Flash Sales campaigns and IoT and technology transfers; the adequate support of online sales channels; and sales contracts with off-store and local partnerships and the professional support network has made the products of the low-priced Xiaomi company an indispensable company for users. The most crucial move of Xiaomi India about offline expansion is the significant factor for its growth and success. Moreover, the promise to

²²¹ Li Kai-Sheng, "The Problem Faced and the Solution of Xiaomi Company in India", *International Journal of Advances in Management and Economics*, Vol.7, No.2, March-April 2018 p.17

²²² Yasentemirov, "The Role of Management Strategies for Start-Up Growth: A Case Study of Xiaomi Technology Company, p.5.

²²³ Chara, *Xiaomi in the MENA Region: A Potential Entry Strategy in Morocco*, Lovin School of Management, p.68.

²²⁴ *Partnering For Inclusive Industrialization Report*, IDC Publishing, 2018, p.21.
(<https://www.idc.co.za/financial-results/2018-annual-report/>) Last Access: 15.02.2021

²²⁵ Priyanka Rawal, Alka Awasthi and Shekhar Upadhyay, "Creating a Hunger Driven Smartphone Markey by Xiaomi", *International Journal of Engineering Science and Computing*, 2017, p.11252.

get innovative designs like foldable smartphones and bezel-less smartphones at an affordable price shall make Xiaomi India sustain the top position in the long turn²²⁶.

Xiaomi company producing smartphones, IoT, wearable technological products, Laptop etc. products; It aims to expand its product range further and increase its sales in the market. Also, its software MIUI and various applications such as video, music etc. in the Mi App Store are also included in the Android ecosystem. The success of India's consumer electronic is due to its similarities in consumer behaviour with China, which mutually has been used as each other's test and learn development processes, leading to a successful and robust product acceptance as Chinese brands enter India's market²²⁷. Today Xiaomi revealed that 99% of smartphones are made in India. Company CEO Manu Jain added in an interview that 65% of the value of smartphones are locally sourced. Last year, Xiaomi had infused \$507 Mn in the Indian entity²²⁸.

Today, In the Indian market mobile phone sales have increased dramatically over the last decade, both in terms of the volume and value. ICRIER (Indian Council for Research on International Economic Relations) 's latest report shows that smartphones to be an industry which sees the lowest Innovation Cycle Time amongst a host of other countries. The number of years from initiation of R&D to first customer delivery is, on average, three years for the industry²²⁹. Xiaomi company has more than 50 thousand employees in India. Acting with the slogan of "domestic production" for the Indian market, Xiaomi has nearly 100% locality in all products it sells in the Indian market. The Xiaomi company, which plans to do every stage in India from the raw materials used in the products they produce to all tabs in the production phase, plans to increase the number of three factories in India to seven next years²³⁰. Carrying its R&D

²²⁶ Tabassum and Shehbaz, *Xiaomi Invades the Smartphone Market in India*, p.230.

²²⁷ Tiffany Lung, *Xiaomi is Proudly 'Made in India'*, Forbes, 29 June 2020
(<https://www.forbes.com/sites/tiffanylung/2020/06/29/xiaomi-is-made-in-india/?sh=44062e231ab6>)
Last Access: 05.02.2021

²²⁸ Aman Rawat, *Xiaomi India Counts on 'Make in India' Success as Focus Turns to Local Manufacturing*, 11 June 2020
(<https://inc42.com/buzz/xiaomi-india-counts-on-make-in-india-success-as-focus-turns-to-local-manufacturing/>) Last Access: 06.02.2021

²²⁹ Rajat Kathuria, Mansi Kedia and Kaushambi Bagchi, *Competition Issues in India Mobile Handset Industry*, New Delhi: Indian Council for Research on International Economic Relations (ICRIER), October 2019, p.22.

²³⁰ Adama Sharma, *Xiaomi Announces Seventh Manufacturing Plant in India, will now Produce 3 Phones per second in the Country*, 19 March 2019
(<https://www.digit.in/news/mobile-phones/xiaomi-announces-seventh-manufacturing-plant-in-india-will-now-produce-3-phones-per-second-in-the-co-47036.html>) Last Access: 06.02.2021

and product development studies to India for sales in the Indian market, Xiaomi company aims to adapt all the products it sells to culture with this strategy. Although the name of Xiaomi company in the pandemic period is mentioned in China's boycott propaganda, the main goal of Xiaomi is to increase its investments in India under the Make in India program. Although Xiaomi company production decreased in the first quarter of this year, competent authorities of Xiaomi said that its manufacturing partners would soon resume production after getting local approvals from state governments and are likely to reach regular capacity²³¹. Xiaomi has thereby abided by its core strategy on some dimensions and adapted the necessary aspects to succeed on the targeted market: Xiaomi embraced a local vision in its global ambitions²³². Increasing its production capacity, advertising, improving the quality of its products and improving its sales channels are, in summary, the main objectives of the Xiaomi company in India under the Make in India program.

II.I.II. New Infrastructure

The most important step in a country's development policies to be successful is provided by investments in infrastructure. As a matter of fact, the completion of the country's infrastructure in terms of investment and transportation makes investment in the country more attractive. In this respect, 'New Infrastructure' is key to the Indian economy. It is key for the Make in India program to contribute to the development of the interconnection of the industrial areas, the breadth of the country's transportation network and the availability of other infrastructures such as ports, airports, etc. for these transportation networks to import and export with other countries²³³.

India was ranked 44th out of 167 countries in the Logistics Performance Index (LPI) by World Bank in 2018²³⁴. This ranking is expected to be higher with the completion of the investments. The Smart Cities Mission Plans in the Make in India

²³¹ Danish Khan, *Xiaomi Factories to Operate at Regular Capacity by June in India; Stares at Manpower Shortage*; Manu Jain, 4 May 2020 (<https://telecom.economictimes.indiatimes.com/news/foxconn-ap-plant-received-approval-to-resume-production-xiaomi-india-head/755318920> Last Access: 06.02.2021)

²³² Chara, *Xiaomi in the MENA Region: A Potential Entry Strategy in Morocco*, Lovin School of Management, p.71.

²³³ Kant, *Incredible India 2.0: Synergies for Growth and Governance*, p. 186.

²³⁴ <https://lpi.worldbank.org/international/global> Last Access: 04.02.2021

program are of great importance in terms of both combining the plans in Industrial Corridors with plans related to New Infrastructures and plans all the infrastructure works to bring the transportation network in the country to world standards.

As part of the Make in India Initiative Program, I will collect the infrastructure programs in four sections. In this context, all projects and infrastructure work planned within the scope of Make in India program will be explained first Industrial Corridors, second Railway Projects, then Doubling of Network of Roads, and finally Sagar Mala Project.

II.I.I.I. Industrial Corridors

Industrial Corridors is a set of services that includes the regulation of the infrastructure of the areas where the industry is located, so that the industrial sector can grow efficiently. Establishing a global infrastructure system and maximizing the portability of production is very important for that country to be a convenient industrial place. Industrial Corridors facilitate industrial clustering, maximizing the growth potential of a region.

Industrial Corridors aims to create a production cluster or develop the hinterland of a production site. Such corridors are often created in areas with pre-existing infrastructure, such as ports, highways, and railways. The most important detail when creating any Industrial Corridor is the efficiency of the demand for these corridors and the plans implemented. Transport channels for the produced materials, workers' portability, incentives for land and companies are of great importance in the creation of these Industrial Corridors. To sum up; Industrial Corridors constitute world-class infrastructure, such as:

- High-speed transportation network – rail and road,
- Ports with state-of-the-art cargo handling equipment,
- Modern airports,
- Special economic regions/ Industrial areas,
- Logistic parks, transshipments hubs,
- Knowledge parks focused on catering to industrial needs,
- Complementary infrastructure such as townships, real estate,

- Other urban infrastructure along with enabling policy framework²³⁵.

Government of India has approved the development of following five industrial corridor project to be implemented through National Industrial Corridor Development and Implementation Trust:²³⁶

1. Delhi – Mumbai Industrial Corridor (DMIC): Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat, Maharashtra
2. Amritsar Kolkata Industrial Corridor (AKIC): Punjab, Haryana, Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, West Bengal
3. Chennai Bengaluru Industrial Corridor (CBIC): Andhra Pradesh, Karnataka, Tamil Nadu, Kerala
4. East Coast Economic Corridor (ECEC) with Vizag Chennai Industrial Corridor: West Bengal, Odisha, Andhra Pradesh, Tamil Nadu
5. Bengaluru Mumbai Industrial Corridor (BMIC).

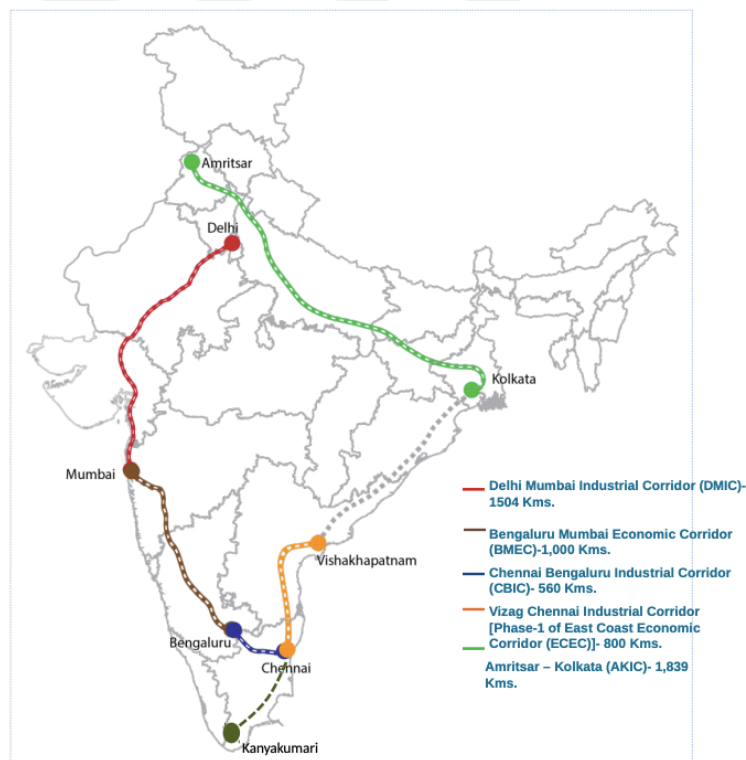


Figure 4: Five Industrial Corridors under the Make in India Initiative program²³⁷

²³⁵ <https://www.makeinindia.com/policy/new-initiatives> Last Access: 04.02.2021

²³⁶ Ministry of Commerce & Industry Industrial Corridors, 2019 (<https://pib.gov.in/Pressreleaseshare.aspx?PRID=1592382>) Last Access: 04.02.2021

²³⁷ Figure is taken by <https://www.nicdc.in/about-DMICDC> Last Access: 06.02.2021

II.I.II.II. Railway Projects

Indian Railways (IR) has the world's 4th longest largest railway network, with a route length of 67,368 km, according to the report released by the government in March 2017²³⁸. The IR carries more than 20 thousand passengers a day, has 277,987 freight cars, 70,937 passenger wagons and 11,452 locomotives²³⁹. The government has a mission to electrify the entire railway by 2023 under the Make in India program.

Indian railways, India's largest infrastructure network, incorporates a variety of innovation programs, including the construction of new stations, improvements to the existing train network, high-speed train programs, opening ports and ports, and futuristic programs such as hyperloop. The railway infrastructure allows 100% foreign direct investment (FDI), opening opportunities for participation in projects such as high-speed railways, railway lines to and from coal mines and parts, electrification, high-speed tracks and suburban corridors²⁴⁰.



Figure 5: Indian Railway Map²⁴¹

²³⁸ *Indian Railways Yearbook 2017-2018*

https://indianrailways.gov.in/railwayboard/uploads/directorate/stat_econ/pdf_annual_report/Railway%20Year%20Book_2017_18.pdf Last Access: 06.02.2021

²³⁹ Ministry of Indian Railways, *Indian Railways*, 2017

(http://www.indianrailways.gov.in/railwayboard/uploads/directorate/stat_econ/pdf_annual_report/Railway%20Year%20Book_2017_18.pdf) Last Access: 04.02.2021

²⁴⁰ Department for Promotion of Industry and Internal Trade, *Changes in FDI Caps In Various Sectors*, 2019 (https://dipp.gov.in/sites/default/files/ru497_0.pdf) Last Access: 04.02.2021

²⁴¹ Figure is taken by <https://www.mapsofindia.com/maps/india/india-railway-map.htm> Last Access: 06.02.2021

The Ministry of Railways is making provisions to involve Public-Private Partnership (PPP) investments to boost passenger amenities. These amenities include foot-over bridges, escalators, and lifts at all major stations, Automatic Ticket Vending Machines (ATVM) at railway stations for dispensation of tickets, computerized Passenger Reservation System (PRS), the introduction of alternate train accommodation scheme for waitlisted passengers. The 'Green Energy Project' of the Indian Railways is important, given the growing concern for environmental pollution, depleting fossil fuels and global warming. The Indian Railways has started making use of solar and wind energy sources to meet their energy requirements²⁴². A proposal is in place to harness solar energy by utilizing rooftop spaces on railway stations, other railway buildings, and land, through the PPP model. Indian Railways aims to achieve 5 GW of their energy requirements through solar energy, with 3.9 GW from utility-scale projects and the remaining from the rooftop. This would result in 25% of the Indian Railways' electricity mix derived from renewables by 2025²⁴³.

The Indian Railway system is of great importance, both in terms of being the largest infrastructure service for India and being the largest investment vehicle in the name of Foreign Direct Investment (FDI). The 2023 and 2030 Railway mission programs are intended to both expand the hinterland of India's railway network and localize production in this area²⁴⁴. On the other hand, while the hyperloop project between Mumbai and Pune is being tried on the one hand, plans to transform the facilitating effect of transportation in advantage with high-speed train programs will continue on the other hand. Investments in the railway network, which form the main skeleton of India, are also important in terms of making the country a more liveable social living area.

II.I.II.III. Doubling of Network of Roads

Roads are an integral part of the country's development policies. In order to maximize the economic and social benefits of a country, the road network must be developed and spread to the most remote corners. In this respect, roads have a great share in the socio-

²⁴² Indian Railway, 2019 (http://www.irgreenri.gov.in/tile_windEnergy.html) Last Access:04.02.2021

²⁴³ Press Information Bureau, *Indian Railways and GAIL (India) Limited sign an MoU for Use of Natural Gas in Railway Workshops and Production Units*, 30 August 2018 (<https://pib.gov.in/Pressreleaseshare.aspx?PRID=1544527>) Last Access: 04.02.2021

²⁴⁴ <https://www.makeinindia.com/sector/railways> Last Access: 06.02.2021

economic development of the country. The investments that the industry-strong, economical dynamic countries will make in road transportation both contribute to the economy of the country at a very high level, and the increase in the mobility of the roads is one of the measures that increase social security.

The road transport industry is indeed instrumental in interconnecting all businesses to all major world markets, driving trade, creating employment, ensuring a better distribution of wealth and uniting humankind. It plays a crucial role in the daily economic and social life of industrialized and developing countries alike²⁴⁵. Therefore, the most important part of the road transport industry is that it is part of an unlimited sustainable system. The safety of the roads, the width of the transport network, its connection with ports and other transport channels are indispensable for the contribution of the road system to the economy.

The road transport sector in India has expanded manifold in fifty years after independence, both in terms of spread and capacity. The growth in the importance of road transport within the transport sector is borne out by its growing share in GDP. The share of road transport in GDP is presently 3.69 percent which accounts for a major share of all transport modes which contribute 5.5 percent to GDP and handles more than 60 percent of the freight and more than 80 percent of the passenger traffic in India²⁴⁶.

Under the Make in India Initiative program, the Indian government attaches great importance to the establishment of an adequate road network in India. This vision envisages a highway vision connecting the farthest corners of India. The reconstruction of bridges and junctions by expanding and strengthening the existing highways and the unlimited connection of the transportation sector with the entire production wing is the basis of the investments and improvements to be made in the Make in India program. In addition to these improvements, it is planned to connect all these roads to ports and other transportation channels and to make the connection of all National Highways, State Highways and District Roadways uninterrupted and smooth to use industry corridors more effectively.

²⁴⁵ Choudhury Mishra, *Transport Sector in India*, New Delhi: Kalyani Publishers, 2011, p.30.

²⁴⁶ *Ibid*, p.32.

II.I.II.IV. Sagar Mala Project

The Sagar Mala Program is a project created to increase the performance of the country's logistics sector under the Make in India program of the Indian government. The main objective of the program is to unlock the potential of waterways and coastlines. In this context, the general objective is to establish new mega ports, to modernize the existing ports, to make investments to improve the 14 Coastal Economic Zones (CEZs) and coastal employment, and finally to provide the ports with road and rail. In this context, Sagar Mala program has 4 main objectives: Port Modernisation, Port connectivity enhancement, Port-linked industrialisation and Coastal community development²⁴⁷.

Increasing current port infrastructure capacity and building new ports is essential to foster export-led development. With rapid growth in cargo volume projected by 2025, a need for port upgradation and new infrastructure arises. Under the Sagarmala initiative, the Government plans to develop six new ports across five coastal states of India. 189 projects with a projected cost of USD 21 Billion have been identified. Currently, 42 projects worth around USD 3.6 Billion are under implementation²⁴⁸. Improving port connectivity in India is quite a challenge, where trade connectivity is focused mostly on road and rail infrastructure. Considering that enhanced port connectivity can provide the much-needed boost to internal trade as well as export and import, 170 port connectivity enhancement projects were listed as part of Sagarmala at a projected cost of USD 35 trillion²⁴⁹. The 33 port-linked industrialization projects, at an estimated cost of USD 65 trillion, led by the Sagarmala Project would complement the Make in India Initiative program. 14 Coastal Economic Zones (CEZs) were proposed as economic regions hosting industrial clusters. The 33 port-linked industrialisation projects, led by the Sagarmala Project at an approximate cost of USD 65 trillion, will complement Make in India's vision. 14 Coastal Economic Zones (CEZs) were proposed as economic regions hosting industrial clusters²⁵⁰.

²⁴⁷ <http://sagarmala.gov.in/project/port-connectivity-enhancement> Last Access: 06.02.2021

²⁴⁸ Press Information Bureau, *Ministry of Shipping*, 9 March 2017

(<https://pib.gov.in/newsite/PrintRelease.aspx?relid=159037>) Last Access: 04.02.2021

²⁴⁹ *Ministry of Shipping*, 2015 (<http://sagarmala.gov.in/about-sagarmala/national-perspective-plans>) Last Access: 04.02.2021

²⁵⁰ <https://www.makeinindia.com/article/-/v/developing-ports-sagarmala-project> Last Access: 06.02.2021

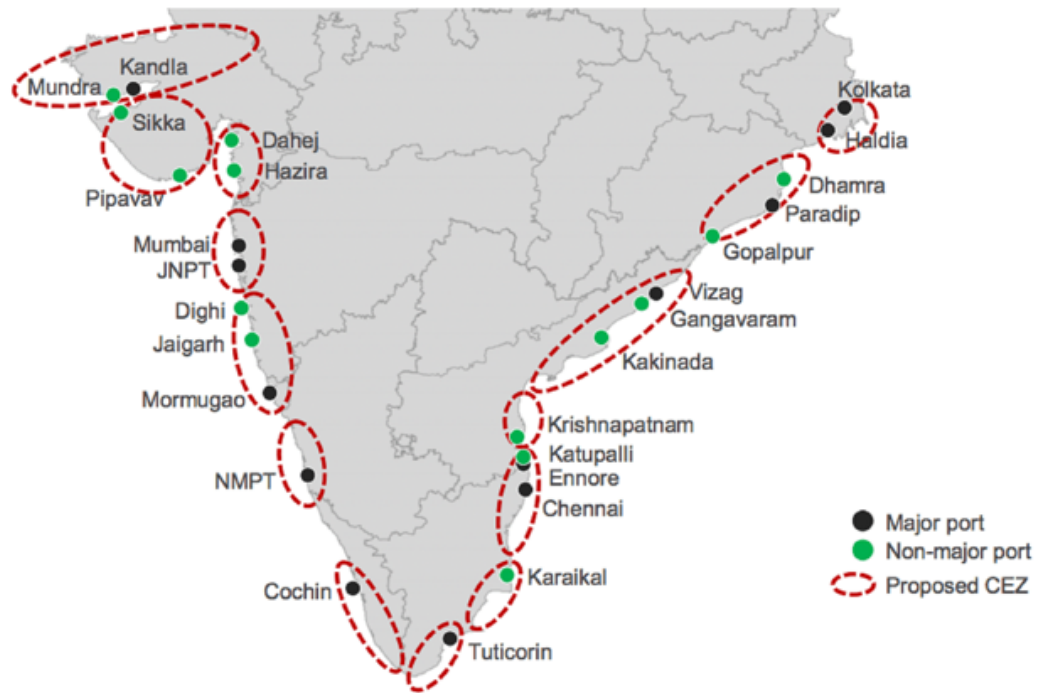


Figure 6: Coastal Economic Zones (CEZs) and Ports²⁵¹

The Sagar Mala Program is the Ministry of Shipping's flagship initiative to facilitate port-led growth in the country by harnessing India's 7,500 km long coastline, 14,500 km of potentially navigable waterways, and its strategic position on main international maritime trade routes²⁵². The main goal is to modernize all ports of India, improve trade logistics and contribute to the growth of the Indian economy. Converting existing ports to 1st class ports aims to connect all industrial corridors of the country to ports by improving the connection of industrial clusters with rail, road, inland and coastal waterways. In general, all programs and missions made for the infrastructure are interconnected and complementary. Industry corridors have been identified as the main mission to develop industrial and industrial infrastructure within the scope of the Make in India program by developing programs and projects that complement each other and are connected with highways, railways and waterways.

²⁵¹ Figure is taken by <https://www.examrace.com/Current-Affairs/NEWS-Blue-Economy-14-Coastal-Economic-Zones-Under-Sagarmala.htm> Last Access: 06.02.2021

²⁵² *Sagarmala Project*, 2015 (<http://sagarmala.gov.in/about-sagarmala/national-perspective-plans>) Last Access: 04.02.2021

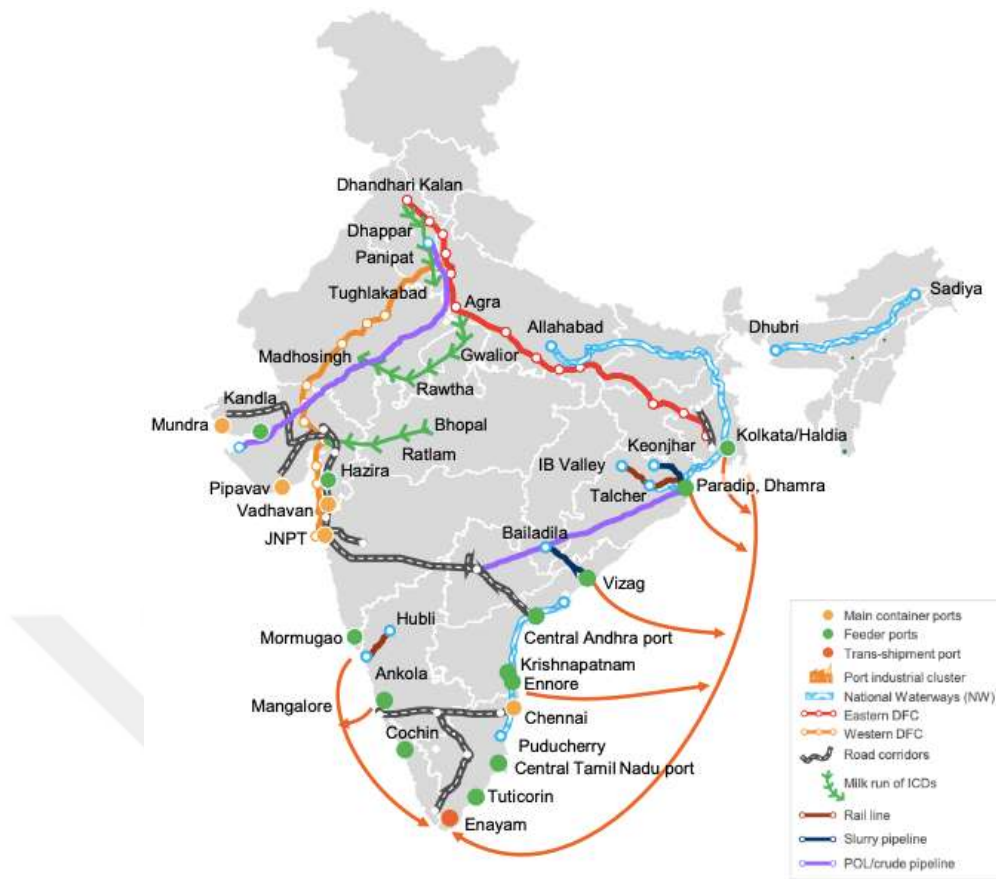


Figure 7: New Infrastructures Map²⁵³

The Sagar Mala Program was originally mooted in 2003 by the government of the National Democratic Alliance (India) under Atal Bihari Vajpayee as the maritime counterpart of the Golden Quadrilateral, another initiative under his administration in the road and highway sector. The purpose of the Program was to exploit the vast coastlines and industrial waterways of India to drive industrial growth. It was approved in March 2015, by the cabinet²⁵⁴.

II.I.III. New Sectors

Within the scope of the Make in India program, the biggest step of the government was the 25 sectors that the economy determined for sustainable development, and its perspective on these sectors. The government, which paved the way for investment in

²⁵³ Figure is taken by www.mapsofindia.com Last Access: 06.02.2021

²⁵⁴ Meera Siva, *All You Wanted to Know about Sagarmala*, 20 January 2018 (<https://www.thehindubusinessline.com/opinion/columns/all-you-wanted-to-know-about-sagarmala/article8640858.ece>) Last Access: 04.02.2021

sectors that include defence industry, space sciences, telecommunications, etc., which are of the privacy and peculiarity of the state, and which have strategic importance, has paved the way for all investment channels for the development and development of sectors by promoting foreign direct investment in these sectors. Although the goals given by the program for ten years are very high, the investments to be made in these sectors for the future can be considered as serious steps for the future of the country.

In fact, this program also represents an attitude change in the Indian government's relations with investors. The government acts as a real business partner rather than as an authorized authority in all advertising promotions from the day it was promoted. In these 25 sectors, which are thought to contribute to the industrial growth of India in order to make the country a global power, the main target has been to create special processing zones, to preserve production and R&D within the country, to increase employment and to develop skills in the manufacturing sector. In this context, the sectors determined under the Make in India program are as follows:

1. Automobiles
2. Auto Components
3. Aviation
4. Biotechnology
5. Chemicals
6. Construction
7. Defence Manufacturing
8. Electrical Machinery
9. Electronic System Design and Manufacturing
10. Food Processing
11. IT and BPM
12. Leather
13. Media and Entertainment
14. Mining
15. Oil and Gas
16. Pharmaceuticals
17. Ports
18. Railways
19. Renewable Energy

20. Roads and Highways
21. Space
22. Textiles
23. Thermal Power
24. Tourism & Hospitality
25. Wellness²⁵⁵.

In this section, I will explain the status of these 25 sectors situation till date, by elaborating their investment channels and the steps taken by the government till day. Previous sections mentioned ports & shipping, railways sector and Roads & highways sectors; so, this section will not reveal any information about the status of these sectors.

II.I.III.I. Automobiles

India ranks fourth in the automobile industry in the world²⁵⁶. In addition, since 2016, under the Make in India program, various policies and missions have been set to increase employment and skills in the automobile market. While the automotive industry is planned to have a market volume of nearly 300 million dollars by 2026, it is expected that there will be a significant increase in both the domestic market volume of India and the foreign market. 5% of Foreign Direct Investment in India has been made to the automobile industry, the investments in this area have increased due to the fact that the production of two-wheel vehicles has increased significantly, commercial vehicle production and its share in the domestic market, and electric vehicle production and R&D in this area²⁵⁷. It is estimated that the 7.6% contribution of the automobile industry to the GDP will reach 12%²⁵⁸.

Under the Make in India program, the main goal of the government is to make India an R&D centre in the automobile industry. Within the scope of this project, the national automotive committee has been established within the scope of “*National Automotive Testing and R&D Infrastructure Project (NATRIP)*” to take over and

²⁵⁵ <https://www.makeinindia.com/sectors> Last Access: 04.02.2021

²⁵⁶ India Brand Equity Foundation (IBEF), *India Automobile Industry Analysis*, New Delhi: IBEF, 5 January 2021

²⁵⁷ *Ibid.*

²⁵⁸ Anand Gupta, *The Future of Mobility India's Passenger-vehicle Market*, 20 July 2018 (<https://www.eqmagpro.com/tag/the-future-of-mobility-in-indias-passenger-vehicle-market/>) Last Access: 04.02.2021

resolve problems between the government and industry. Within the scope of this project created in 2015, five R&D centres were established²⁵⁹. However, within the scope of the “*Faster Adaptation and Manufacturing of Electric Vehicles (FAME)*” program, it was decided to include electric vehicles in public transportation systems in 2019²⁶⁰. With this project, which is planned to operate in 11 cities in the first place, the aim is to develop projects for electric public transport systems by 2020.

Within the scope of the Make in India program, the policies and projects of the automobile sector created by the government until today are as follows:

- Automobile Policy
- Automotive Mission Plan (2016-2026)
- Draft National Automotive Policy 2018
- National Automotive Testing and R&D Infrastructure Project (NATRIP)
- The National Electric Mobility Mission Plan 2020 (NEMMP)
- Fester Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India
- New Green Urban Transport Scheme (GUTS) 2017²⁶¹.

Within the scope of all these programs, annual automobile exports increased by 14% until 2020. Within the scope of the projects until 2026, it is aimed to increase this increase by 3%²⁶². The regional incentives of the government and states are also of great importance for these goals. Incentives are in areas like rebates in land cost, relaxation in stump duty exemption on sale or lease of land, power tariff incentives, a concessional rate of interest on loans, investment subsidies/ tax incentives, backward areas subsidies and special incentive packages for mega projects²⁶³. Finally, the main mission of the Indian government for 2030 is to be among the top three in the world in automobile production and market share under the Make in India program.

II.I.III.II. Automobile Components

The biggest functional part of the automobile industry is actually Automobile Components. Each vehicle produced has a wear share, spare parts requirement and

²⁵⁹ Ibef, *India Automobile Industry Analysis*.

²⁶⁰ *Ibid.*

²⁶¹ <https://www.makeinindia.com/sector/automobiles> Last Access: 06.02.2021

²⁶² *Ibid.*

²⁶³ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities& Laws in India*, p. 55.

R&D department for investments. These components form the basis of the Automobile Components infrastructure. In this regard, the Automobile Components infrastructure is of great importance both in terms of supporting the automobile industry and being an employment provider.

Automobile Components investments and incentives within the scope of the Make in India program have achieved nearly 10% growth in the last 5 years²⁶⁴. Achieving a growth of US \$ 57 billion in Fiscal 2019, the contribution of Automobile Components to exports in the country is around 8%²⁶⁵. This market, which constitutes 2.3% of India's GDP, has a large share of 25% in the manufacturing sector²⁶⁶. Although it is known that it provides close to 100 thousand jobs according to official sources, it is estimated that it provides close to 10 million jobs, especially in the informal economy. When it comes to elements such as car mechanic, apprentices, import companies, etc. working in this market, it is thought that it provides a total of 25 million jobs²⁶⁷.

The campaigns and policies initiated by the Indian government for the automobile industry include Automobile Components. Also, all the incentives provided by the states in India for the automobile sector are valid within the Automobile Components. Each state in India offers additional incentives for industrial projects. Incentives are in areas like subsidised land cost, relaxation in stamp duty exemption on sale and lease of land, power tariff incentives, concessional rate of interest on loans, investment subsidies, tax incentives, backward areas subsidies and special incentive packages for mega projects²⁶⁸. In addition, 100% FDI is allowed under the automatic route in the auto components sector, subject to all the applicable regulations and laws²⁶⁹.

II.I.III.III. Aviation Industry

India, which has the 9th largest aviation sectors in the world, is one of the areas that require very required investment for future periods with an average of 275 million

²⁶⁴ <https://www.makeinindia.com/sector/automobile-components> Last Access: 06.02.2021

²⁶⁵ *Ibid.*

²⁶⁶ Automotive Component Manufacturers Association (ACMA) of India, *Indian Auto Component Industry Performance FY 19* (<https://www.acma.in/auto-component.php>) Last Access: 04.02.2021.

²⁶⁷ Emis, *India Automotive Sector Report 2017/2019*, New Delhi: Emis Insights May 2018, p.12 (https://www.emis.com/php/store/reports/IN/India_Automotive_Sector_Report_20172021_en_614386487.html) Last Access: 04.02.2021

²⁶⁸ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities& Laws in India*, p. 56

²⁶⁹ *Ibid.*

domestic, 52 million international passenger transportation and 13% growth rate²⁷⁰. The UDAN (Ude Desh ka Aam Naagrik) program, which was launched by the government within the scope of the Make in India program to increase the prices to affordable levels, especially in domestic flights, and 100 new airports and portable terminals planned to be built until 2024, stand out as policies that will increase investment and improve the market volume in the future periods²⁷¹.

Geographic location is one of the most important things to stand out in the international aviation industry. For example, in the aviation industry uses the geographical location of Turkey very productive, especially in commercial air transport ended advantageous given the geographical location of the investments in the period began to be successful. Likewise, it is known that Germany started these studies 20 years ago. In addition, using the advantage of geographical location in the UAE, Kazakhstan and Ukraine, they are working hard to become a bridge and transfer centre between East and West. On the other hand, India plans to increase the domestic aviation system to maximum levels by 2038, and to maintain sustainable development policies in the aviation sector by using new mega terminals in the field of international aviation, by using the advantage of geographical position in the next ten years²⁷².

II.I.III.IV. Biotechnology

Biotechnology industry, one of the most developed sectors of India on a global scale, is one of the leading countries in the world in terms of both its success in R&D and production. India, which is among the top ten biotechnology destinations in the world, has made significant progress in terms of production in its expertise in the biotechnology sector²⁷³. The biotechnology sector, which has R&D opportunities in both the public and private sectors, has 2% of the global market²⁷⁴. In addition to all these, the biotechnology sector, whose market share is planned to reach 100 million dollars by 2025, continues to receive investments within the scope of FDI for both

²⁷⁰ IATA, *Healthy Passenger Demand Continues in 2018 with Another Record Load Factor*, &7 February 2019 (<https://www.iata.org/en/pressroom/pr/2019-02-07-01>) Last Access: 04.02.2021

²⁷¹ *Ibid.*

²⁷² <https://www.makeinindia.com/sector/aviation> Last Access: 06.02.2021

²⁷³ <https://www.makeinindia.com/sector/biotechnology> Last Access: 06.02.2021

²⁷⁴ *Ibid.*

clinical research and production activities with the investments made after the Make in India program²⁷⁵.

India's biotechnology industry continues to receive investments today under the Make in India program. Especially thanks to the campaigns and incentives announced by the government, these investments and partnerships are expected to continue increasingly. The campaigns, plans and missions announced by the government to date in the field of biotechnology are as follows;

- National Guidelines for Stem Cell Research-2017
- Guideline on Similar Biologics-Regulatory Requirements for Marketing Authorization in India-2012
- National Biotechnology Development Strategy-2015
- National Intellectual Property Rights Policy-2016²⁷⁶.

Offering great advantages in terms of its R&D facilities, know-how, cost and production capacity, India is planning to become a determinant in the market in the field of biotechnology in the global market with the incentives under the Make in India program.

II.I.III.V. Chemicals

The Chemicals industry in India is an important contributor to the Indian economy sustaining a variety of downstream industries such as textiles and pharmaceuticals. The Indian chemicals industry with a market size of USD 145 billion is the seventh largest producer of chemicals worldwide and the third largest producer in Asia after China and Japan²⁷⁷.

The chemicals industry, which is one of the most important building blocks for medium-sized enterprises in India, mainly consists of petrochemical products, fertilizers, paints, glass, perfume, toiletries, and pharmaceutical products. The main

²⁷⁵ Biotechnology Industry Research Assistance Council (BIRAC), *Make in India for BIO-TECH; the way forward*, New Delhi: BIRAC Sector Report, 2016, p.13.

²⁷⁶ <https://www.makeinindia.com/sector/biotechnology> Last Access: 04.02.2021

²⁷⁷ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities& Laws in India*, p.75.

customers of these products are the USA, BEA, Arabian Peninsula and the rest of the South Asian region.

With a 10% annual increase in exports and a total of 2 million people, this sector is the most important sector of medium enterprises. The policies and campaigns of the government related to these sectors within the scope of the Make in India program are as follows²⁷⁸;

- R&D Incentives for Industry and Private Sponsored Research
- Manufacturers with an In-House R&D Centre
- State Incentives
- Export Incentives
- Area-Based Incentives
- Key Points in the Union Budget 2019-2020.

It is aimed to increase the volume of this area with incentives that include both regional and whole India, and with FDI, increasing the volume for the next period in this sector, and supporting Skill Development and Start-up programs in India.

II.I.III.VI. Construction

Construction sector contributes 9% of the Indian GDP. It is the second largest employer and contributor to economic activity, after the agriculture sector. The construction sector accounts for second highest inflow of FDI after the services sector and employs more than 35 million people²⁷⁹. The campaigns and plans that the government covers in this sector with the Make in India program are as follows;

- Smart Cities Mission
- Atal Mission for Rejuvenation and urban Transformation (AMRUT)
- Swachh Bharat Mission
- Heritage City Development and Augmentation Yojana (HRIDAY)²⁸⁰.

²⁷⁸ Department of Fertilization, *Annual Report 2019* (<https://fert.nic.in/publication-reports/annual-report>)
Last Access: 04.02.2021

²⁷⁹ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p.79.

²⁸⁰ <https://www.makeinindia.com/sector/construction> (Last Access: 04.02.2021)

In the construction market in India, where a growth of 6% is expected between 2019-2024, the studies especially for infrastructure form the basis of this sector²⁸¹. All the investments made, bridges, dams, roads, ports, railway works, investments for the energy sector are the main building blocks of this sector. For a sustainable economic development, the advance of the infrastructure without interruption is of great importance for the implemented development model or innovation programs to be more functional and efficient. In this respect, within the last five years, within the scope of the Make in India program, both public and private Indian companies have offered business opportunities to nearly 50 million people and have made an investment breakthrough, which has achieved an average of 3% growth each year²⁸².

With the programs announced by the government in the short term and long term, this growth is planned to continue exponentially. As a matter of fact, the Indian government states that there is a need to invest \$ 646 billion in the infrastructure sector by 2024, this number will result in a 50% growth in the 2050s and this investment amount will grow²⁸³. Within the scope of FDI, the construction sector, where investments are the most channelled, can be created by further researching and analysing the policies of developing countries, thereby maximizing efficiency and investment channels in this area.

II.I.III.VII. Defence Manufacturing

The Defence Manufacturing of India, which is one of the biggest military forces in the world and has a key importance within the scope of the Make in India program in this respect, is one of the leading sectors in which India makes a great reference in the production area with its two million personnel and over 60 million budgets²⁸⁴. India, which is 60% foreign dependent in the industrial sector, main target in this field is to

²⁸¹ <https://www.makeinindia.com/sector/construction> Last Access: 06.02.2021

²⁸² *Ibid.*

²⁸³ Ministry of Housing and Urban Affairs, *Standard Operating Procedures for Cleaning Sewers and Septic Tanks*, November 2018

(<http://cpheeo.gov.in/upload/5c0a062b23e94SOPforcleaningofSewersSepticTanks.pdf>)

Last Access: 04.02.2021

²⁸⁴ Shaswati Das, *Sitharaman Keeps Defence Sector Outlay Unchanged in Budget 2019*, 5 July 2019 (<https://www.livemint.com/budget/news/sitharaman-keeps-defence-sector-outlay-unchanged-in-budget-2019-1562314073096.html>)

Last Access: 04.02.2021

reduce foreign dependency to zero. The main target reached at the end of Defence Production of 2018 (DPrp-2018) goals are to be one of the top five global manufacturers in aviation and defence manufacturing until 2025²⁸⁵. The Make in India initiative by the Government is focusing its efforts on increasing indigenous defence manufacturing and becoming self-reliant²⁸⁶.

It is not possible to say that India has been very successful in defence industry from past to present. The defence industry of India, which is especially dependent on Russia, aims to eliminate this dependency and reach self-sufficient defence capacity within the scope of the Make in India program. In this context, the government's policies to encourage domestic production and exports for the defence industry are expected to make a significant breakthrough for both FDI investment channels and technology transfer. However, some critics claim that the Indian government has been covered by the Make in India program, and since 2014, a total of nearly \$500 million of equipment has been purchased without consulting the Defence Ministry of India²⁸⁷. Also, M.K. Singh and R. Ranjan argue that the greatest weakness in India's defence manufacturing was the lack of a high-powered institution that can lay out a long-term roadmap for the defence industry, set a target for the industry, monitor the progress, and more importantly bring all the stake holders on one platform and commit to the common cause of Make in India or self-reliance²⁸⁸. This situation shows that today's investment seems to be an attractive move, rather than meeting the needs of the institution in need, it will become more criticized in terms of partnership or investment in terms of political purposes or in the crisis periods.

FDI Policy permits up to 49% investment under the government route, above 49% on a case-to-case basis on approval by the Cabinet Committee on Security, wherever it is likely to result in access to modern and state-of-the-art technology.

²⁸⁵ Jayant Singh, *Defending World* (<https://www.investindia.gov.in/sector/defence-manufacturing>)
Last Access: 04.02.2021

²⁸⁶ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p.81.

²⁸⁷ The Economic Times, *Post Pulwama, Government Grants More Financial Powers to the 3 Services for Weapons*

(<https://economictimes.indiatimes.com/news/defence/post-pulwama-government-grants-more-financial-powers-to-the-3-services-for-weapons/articleshow/68916823.cms?from=mdr>)

Last Access: 04.02.2021

²⁸⁸ M.K. Singh and R. Ranjan, *Make in India; Initiatives and Challenges*, New Delhi: Prashant Publishing, 2015, P.44

Investments by foreign portfolio investors/ FIIs under automatic route²⁸⁹. This status of FDI has been updated in 2018-2019 Union Budget as follows;

- 100% FDI in defence sector: up to 49% under automatic route; FDI above 49%, through government route where it is likely to result in access to modern technology.
- The defence industry is subject to industrial licences under the Industries Act, 1951 and manufacturing of small arms ammunition under the Arms Acts, 1959.
- Infusion of fresh foreign investment within the permitted automatic route level, in a company not seeking and industrial license, resulting in a change in the ownership pattern or transfer of stake by existing investor to new foreign investor, will require Government approval²⁹⁰.

II.I.III.VIII. Electrical Machinery

The Electrical Machinery sector, which is expected to invest nearly 100 billion dollars until 2020, has grown on average by 13% within the scope of the Make in India program²⁹¹. The Electrical Machinery sector consists of production, transmission and distribution machines.

The Indian government has cleared 100% FDI by removing licenses from the electrical machinery industry²⁹². While many nuclear agreements come into force, India is expected to compete in producing nuclear industry equipment. In this context, it is expected to increase production and transmission assets, engineering services, equipment supply and technology collaborations and increase FDI for financing in nuclear and clean energy sources²⁹³. To sum up, India produces the full range of electric power generation and transmission machinery. The electric machinery industry consists of four key products; generation machinery, transmission machinery, distribution machinery and other electric motors, wires and cables²⁹⁴.

²⁸⁹ Gen PK Grover, "Make in India: A Defense Sector Perspective", *Make in India; Retrospectives and Perspective*, Ed. Rakesh Kumar Gupta and Geeta Bansal, New Delhi: Bharti Publications, 2015, p.18

²⁹⁰ *Union Budget of India 2018-2019* (<https://www.indiabudget.gov.in/budget2018-2019/budget.asp>)
Last Access: 04.02.2021

²⁹¹ EEPIC India, *Indian Electrical Machinery & Equipment Industry*, New Delhi: Scribd Publishing, 2019
(<https://www.scribd.com/document/459277230/Electrical-Equipment-Industry-190312114534-pdf>)
Last Access: 04.02.2021

²⁹² Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p.99.

²⁹³ *Ibid.*

²⁹⁴ *Ibid*, p.101.

II.I.II.IX. Electronic Systems

Electronic Systems sector, which is one of the five sectors where the most foreign investments are received, forms the basis of the reforms in the IT sector and electronics production²⁹⁵. Having realized an average of 24% growth within the scope of the Make in India program, the electronic systems sector increased its market volume from 70 billion in 2014 to over 400 billion in 2020²⁹⁶.

India is one of the countries with the world's largest start-up ecosystem. As a result of this, various incentives and sector policies were determined within the scope of the Make in India program, and 100% FDI and automatic route were allowed within the scope of FDI and announced that incentives for innovation and R&D will be made for all areas of the Electronic Systems sector. National Policy on Electronics (NPE) and Preferential Market Access (PMA) can be described as two important steps of the main sector policies taken for this sector²⁹⁷.

The average market size of major production sub-sectors in the Electronic Systems sector in 2020 is as follows;

- Telecom Equipment (USD 34 billion),
- Laptops, Tablets, PCs (USD 34 billion),
- LED TVs (USD 35 billion),
- Consumer Electronics (USD 29 billion),
- Set Top Boxes (USD 10 billion),
- Automotive Electronics (USD 10 billion),
- Medical Electronics (USD 8.5 billion)²⁹⁸.

II.I.III.X. Food Processing

The Indian food industry is one of the top five markets in the world and, the Indian Food Processing industry, which accounts for 32% of India's total food market,

²⁹⁵ <https://www.makeinindia.com/sector/electronic-systems> Last Access: 06.02.2021

²⁹⁶ “Finance Minister to hold pre-budget consultations with Trade & Industry bodies on 16th Dec” (<https://knnindia.co.in/news/newsdetails/economy/finance-minister-to-hold-pre-budget-consultations-with-trade-industry-bodies-on-16th-dec>) Last Access: 04.02.2021

²⁹⁷ <https://www.makeinindia.com/sector/electronic-systems> Last Access: 06.02.2021

²⁹⁸ <https://nasscom.in/knowledge-center/publications/iot-india-next-big-wave> Last Access: 04.02.2021

accounts for 13% of India's exports by 2020. India, which is the second largest producer of fruits, vegetables and meat products in the world, ranks first in dairy production. In addition, it has the largest animal population in the world, with a population of 512 million animals²⁹⁹.

India's economic policies are designed to attract significant capital inflows into the country on a sustained basis and to encourage technology sharing between Indian and foreign firms. The government of India is offering 100% FDI and income tax benefits in the food processing sector³⁰⁰. There are incentives for setting up processing plants either in agri-export zones or outside of them. Sourcing of raw materials – fruits and vegetables or flowers or meat- is easier with an Agri Export Zone (AEZ) since there are already participants with knowledge about the industry standards. There are opportunities to create – Halal hub (nine exports to south-east Asia, the West Asia), vegetarian hub (20 percent of Indian population+ overseas), organic food hub (Europe and the US) and seafood hub in the country³⁰¹.

The government of India plans to establish a cold air chain in various parts of the country to reduce the post-harvest losses of all these products produced under the Make in India program. In addition, plans are being made for the effective use and distribution of all these products produced in the Mega food parks project. In addition, Food Safety and Standards Authority of India (FSSAI) launched a large program of \$ 72 million in 2016 for the development of food testing laboratories in India and the quality control of manufactured products³⁰².

Investments in this area are actually the product of gradual investments in the entire agriculture and food processing sector from the independence of India to the present day. All the work done in the past is expected to result in India having a very important place in the world food industry with the investments made in the Make in India program today. As a matter of fact, Pooja Chopra stated that the Food Processing sector of India was scattered in 42% in 2015 with its market study, stated that it was

²⁹⁹ Ministry of Agriculture & Farmers Welfare, *Annual Report 2018-2019*, New Delhi: Department of Agriculture, Cooperation & Farmers Welfare, 2019
(<http://agricoop.nic.in/sites/default/files/ACFW%20English%20%20Annual%20Report%202019-20.pdf>) Last Access: 04.02.2021

³⁰⁰ Sunil Kumar Gupta, *Make in India: A Compendium of Business Opportunities & Laws in India*, p.73

³⁰¹ Sarabjeet Kaur, "Make in India: Issues and Challenges in Food Processing Industry", *Make in India-Policies: Issues and Challenges*, Ed. Masoor Ahmad Beg, Sanjay Kumar and Tariq Sayeed, New Delhi: Bharti Publications, 2016, p.120

³⁰² *Ibid.*

33% semi-organized and 25% organized; He stated that with the Make in India program, all this unorganized part will adapt to a sustainable development model³⁰³.

As a result of all these details, it can be said that Food Industry is one of the biggest sectors in India. Making good use of the advantage of geographical location, India plans to both sustainably grow this sector and increase efficiency.

II.I.III.XI. Information Technology and Business Process Management (IT-BPM)

Most businesses are dynamic, with processes and objectives that are constantly developing. In order to keep the processes within a business streamlined and efficient as well as reduce costs across business functions, business process management (BPM) is necessary. India is among the largest offshoring destinations in the world for IT companies, the BPM industry here accounts for about 37 percent of the global outsourced BPM market, which was earlier called the Business Process Outsourcing (BPO) market³⁰⁴.

Today, India is a pioneer in IT-BPM sector. More than one million expert workforces are a pioneer for a sustainable development model in the world market with its 25% growth every year and the incentives it receives under the Make in India program³⁰⁵. The IT industry has also created significant demand in the Indian education sector, especially for engineering and computer science. The Indian IT and the industry is divided into four major segments – IT services, Business Process Management (BPM), software products and engineering services, and hardware³⁰⁶. By 2020, it is aimed that this sector will have an overall market impact of over 310 million dollars and a total impact of India's GDP of 18%³⁰⁷.

³⁰³ Pooja Chopra, "Marketing Strategies for Leveraging the domestic Food Processing Sector under "Make in India" Program", *Make in India; Destination 'Made in India'*, Rakesh Kumar Gupta and Geeta Bensal, New Delhi: Bharti Publications, 2015, p.264.

³⁰⁴ IBEF, *Indian BPM Industry: Way Forward!*

(<https://www.ibef.org/blogs/indian-bpm-industry-way-forward>) Last Access: 04.02.2021

³⁰⁵ <https://www.makeinindia.com/sector/it-and-bpm> Last Access: 06.02.2021

³⁰⁶ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p.121.

³⁰⁷ Nasscom, *Catalyzing the Ecosystem for A Trillion Dollar Digital Economy*, Hyderabad: Nasscom Publishing, 2018

(<https://nasscom.in/knowledge-center/publications/indian-tech-start-ecosystem-%E2%80%93-trillion-dollar-digital-economy>) Last Access: 04.02.2021

II.I.III.XII. Leather

Leather, which is one of the most traded goods in the world from past to present, is one of the products used especially in the clothing industry. In line with the inadequacy of technology used in the leather industry in India, the need for innovation and increasing the export earnings with sustainable growth, this sector is within the scope of the Make in India initiative program. In addition, Indian leather sector stands at USD 18 billion, and has an abundance of raw materials with access to 20% of World's Cattle and Buffalo and 11% of the world's Goat and Sheep population³⁰⁸. 100% FDI is permitted through the automatic route.

II.I.III.XIII. Media and Entertainment

India, which is the second biggest TV market in the world and plans to be in the top 10 in the world music market in the next 10 years, shows great success in the Media and Entertainment sector within the scope of the Make in India program with an average annual growth of 12%. With the sector volume of 2.5 billion dollars, the annual investments in this sector are targeted to reach up to 33%.³⁰⁹

Indian Media Industry is a sector that includes media, TV, movies, music, visual effects, games, digital advertising, etc. Especially with the successes of Bollywood movie and music industry, it is important in terms of both delivering the culture of the country to the world and becoming a global brand in this sector in the world.

II.I.III.XIV. Mining

The Mining industry in India, which makes an average of 3% contribution to India's GDP and ranks fifth in the world market, is of great importance in terms of both exports and production volume of chromite, bauxite, mica and manganese³¹⁰. Through the private and public sectors, the government runs plans and programs to explore potential

³⁰⁸ <http://leatherindia.org/indian-leather-industry/> Last Access: 04.02.2021

³⁰⁹ Sanjay Kachot, *Journey of Television Revolution*, Press Information Bureau Special Service and Features, August 2017 (<https://pib.gov.in/newsite/printrelease.aspx?relid=169686>) Last Access: 05.02.2021

³¹⁰ *Ibid.*

mineral resources for sustainable growth in the field of mining under the Make in India Initiative program.

In the past, mining policies generally consisted of only programs related to the regulation of minerals. In order to eliminate the stagnation in this sector with the Make in India Initiative program, the Indian government has started to make various studies to expand the sector and increase investments by introducing various arrangements for mineral exploration, mine development and greater participation and investment of the private sector in this field. Various arrangements and improvements made by the Indian government in this area under the Make in India Initiative program are as follows:

- Mines and Minerals Development and Regulation (MMDR) Act has been amended by the Modi Government. The amendment removed discretion by instituting auction to be sole method of grant of major mineral concessions and bringing in greater transparency,
- Mineral Concessions Grant Through Auctions to bring transparency and remove discretion,
- District Mineral Foundation (DMF) actions,
- National Mineral Exploration Trust (NMET) actions,
- Mining Leases for 50 years and even the existing leases deemed extended eliminating any renewals for security of tenure,
- To promote conducive environment for trade, stronger penal provisions for checking illegal mining with higher penalties up to USD 7693 per hectare of the area and jail term up to five years.³¹¹

The Government of India has allowed 100 per cent Foreign Direct Investment (FDI) in the mining sector and exploration of metal and non-metal ores under the automatic route, which will propel growth in the sector³¹². Power and cement industries also aiding growth in the metals and mining sector. Demand for iron and steel is set to grow, given the strong growth expectations for the residential and commercial building industry. By March 2019, 105 mineral blocks are expected to be auctioned. As of May 2019, 64 mineral blocks have been auctioned.³¹³

³¹¹ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p.129.

³¹² *Ibid.*

³¹³ Ibef, *Indian Metals and Mining Industry Analysis Report*, New Delhi: Ibef Foundation, November 2020, p.23

India has set a goal to switch completely to electric vehicles by 2030. However, to achieve this goal, it needs to invest in domestic manufacturing of lithium-ion batteries. The NITI Aayog has observed that India does not have adequate reserves of some of the most important lithium-ion components including lithium, cobalt, and nickel. India will need to forge international partnerships and joint ventures to secure access to key minerals in order to build up its domestic battery manufacturing industry. We understand from reports that India is in the process of conducting talks for partnerships with Argentina, Bolivia, and Chile for importing lithium at concessionary rates.³¹⁴

II.I.III.XV. Oil and Gas

The Oil and Gas sector has a great importance in terms of both being a direct impressive factor in terms of production and being an impressive factor in the countries that invest in its industry in terms of processing and consumption. With the growth of the industry, the need for Oil, Gas and oil is increasing day by day in India. Today, the dependence of oil and gas, production and growth are the main factors that directly affect. In this respect, the policies of the government in this sector are of great importance within the scope of the Make in India program.

According to the International Energy Agency (IES), the increase in energy demand in India by 2040 will account for a third of the global increase. As of December 1, 2019, the oil refining capacity of India stood at 238.60 million tonnes, making it the second-largest refiner in Asia. Private companies own about 35.36 percent of the total refining capacity³¹⁵. Several initiatives have been taken by the Government of India including the launch of Open Acreage Licensing Policy (OALP) and Coal Bed Methane (CBM) policy. It has allowed 100 percent foreign direct investment (FDI) in E&P projects/companies and 49 percent in refining under the automatic route³¹⁶.

The government has a wide range of incentives and improvements for this sector, from programs for oil refineries to production and FDI policies. The most basic of these policies are:

³¹⁴ Neeraj Menon and Karthy Nair, *Mining in India*, 18 July 2018
(<https://www.lexology.com/library/detail.aspx?g=6e1b8cb8-f7bd-4905-9d0e-13a304d9cb4d>) Last
Access: 05.02.2021

³¹⁵ Ibef, *Oil & Gas*, New Delhi: Ibef Foundation, p.6.

³¹⁶ Ibef, *Oil & Gas*, p.29.

- Hydrocarbon Exploration & Licencing Policy (HELP) - 2016,
- Small Fields Policy - 2016,
- Marketing and Pricing Freedom Policies for gas produced areas - March 2016,
- Grant of extension to the Production Sharing Contracts Policy – March 2016,
- Policy on Testing Requirements for discoveries in New Exploration Licencing Policy (NELP) – 2015,
- Ethanol Blending Petrol Program – 2014,
- 100% Foreign Direct Investment (FDI) automatic route,
- Auto Fuel Vision & Policy – 2017.³¹⁷

These policies are important both in terms of opening up the growth of the industry and supporting domestic businesses in these sectors and reducing foreign dependency in this context.

II.I.III.XVI. Pharmaceuticals

India has an important position in the pharmaceutical industry today. India, which is the third largest pharmaceutical manufacturer in the world, realizes various policies and policies to increase the investments of the private sector within the scope of the Make in India program on R&D studies and increasing the production capacity.

Drugs produced in India are exported to more than 200 countries today³¹⁸. Exports of bulk drugs, intermediates, drug formulations, biologists, Ayurveda & Herbal products and surgical grew by 15% in 2019 compared to the previous year³¹⁹. This figure is expected to increase in 2020 and beyond as part of the policies implemented by the government under the Make in India program.

- The Pharma Vision – 2020,
- Scheme for Development of Pharma Industry Policy - 2018

³¹⁷ <https://www.makeinindia.com/sector/oil-and-gas> Last Access: 05.02.2021

³¹⁸ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p. 111

³¹⁹ <https://www.makeinindia.com/sector/pharmaceuticals> Last Access: 06.02.2021

- As per the Union Budget 2019-20, the allocation to the Department of Pharmaceuticals has been USD 33millions,
- The National Pharmaceutical Pricing Policy – 2012,
- Pharmaceuticals Purchase Policy (PPP) – 2019,
- Pharmaceuticals Promotion Development Scheme (PPDS) – 2019
- 100% FDI has been allowed through automatic route for greenfield pharmaceuticals, and up to 74% FDI has been allowed for Brownfield pharmaceuticals projects.³²⁰

II.I.III.XVII. Renewable Energy

All energy sources that can be obtained from natural sources are called renewable energy sources. The general sources of these resources are solar energy, wind energy, geothermal energy, hydraulic energy and biomass. The most important part of the renewable energy sector is the storage units created for the unused part of the energy produced. It is thought that the units to be established for storing the energy that is not used and used in the coming periods will be made for R&D and this sector will become the main subject of progress.

According to Renewable Energy Country Attractiveness index 2019, studies on renewable energy in India is the fourth attractive renewable energy market in the world³²¹. Renewable energy generation capacity in India has grown by 20% from 2014 to 2020 as a result of investments made under the Make in India program³²². India, which is expected to meet all energy needs by 2040, aims to reach 175GW renewable energy capacity by 2022 as part of the Paris Agreement commitments. 100 GW of this contracted 175GW capacity consists of solar power and 60 GW of wind power capacities³²³. It is known that within the scope of FDI until today, especially European countries such as Germany, Denmark and Spain, investments such as America, Asian Development Bank and investments such as Japan seriously came from this sector. In

³²⁰ <https://www.makeinindia.com/sector/pharmaceuticals> Last Access: 05.02.2021

³²¹ Ren21, *Renewables 2019; Global Status Report 2019*, Paris, p.71.

³²² Ministry of New and Renewable Energy (MNRE), *Year End Review*, New Delhi, Jan 2020 (<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1598948#:~:text=YEAR%20END%20REVIEW%2C%202019%2C%20MNRE&text=This%20includes%20100%20GW%20from,access%20and%20enhanced%20employment%20opportunities.>) Last Access: 05.02.2021

³²³ Ibef, *Renewable Energy Report 2020*, New Delhi: Ibef Foundation, November 2020, p.15.

the upcoming period, it is planned by the government to carry out works for both the continuity of these investments and increasing the volume of existing investments. Under the Make in India program, the government of India plans to create a 500GW renewable energy source by 2030³²⁴.

The policies, programs, incentives and status amendments of the government for renewable energy sources under the Make in India program are as follows:

- Renewable Power Obligation (RGO) for New coal/lignite based thermal plants,
- Solar Renewable Power Obligation (RPO),
- Solar Parks and Ultra Mega Power Projects,
- Development of power transmission network through Green Energy Corridor Project,
- Offshore wind energy Policy,
- FDI up to 100% is permitted under the automatic route,
- Repowering next phase of wind power projects.³²⁵

II.I.III.XVIII. Space

The space sector in India is one of the most influential sectors in the world in terms of cost-efficiency analysis. In 1962, the first activities in this sector started with Indian National Committee for Space Research (INCOSPAR); with the establishment of the India Space and Research Organization (ISRO), a successful performance has been exhibited in this sector. Inclusion of this sector in the Make in India Initiative program is in the field of technology transfer and R&D. In addition, under the government route, FDI up to 100% is allowed in satellites establishment and operation³²⁶. Since the sector has a national importance for India, all kinds of information flows and developments are carried out with strict confidentiality.

II.I.III.XIX. Textiles and Garments

The textile industry, which has been in the Indian economy for centuries, is important in terms of having a market volume of 150 billion dollars, an average annual growth

³²⁴ <https://www.makeinindia.com/sector/renewable-energy> Last Access: 05.02.2021

³²⁵ *Ibid.*

³²⁶ <https://www.makeinindia.com/sector/textiles-and-garments> Last Access: 05.02.2021

rate of 12%, both in terms of hosting the current population of 6-7 million and being seen as a development tool for many areas of the industry³²⁷. Within the scope of the Make in India program, various steps have been taken for the growth of this sector within the country and various investments for future periods have been opened with various government incentives, FDI, customs duties in this sector.

The projects, incentives and programs carried out by the government in relation to this sector to the present day under the Make in India program can be listed as follows:

- Ministry of Textiles 2019-2020,
- Amended Technology Upgradation Fund Scheme,
- Integrated Skill Development Scheme,
- Integrated Textile Park Scheme,
- Integrated Processing Development Scheme,
- Mega Textile Clusters Scheme,
- Merchandise Export from India Scheme (MEIS),
- 100% FDI is allowed under the automatic route.³²⁸

To provide encouragement to textile manufactures and farmers of raw materials, the government has been providing incentives like minimum support price to cotton farmers, upgrading the technology for handloom weavers and providing centres for trade facilitation. The emphasis on the handloom brand, such as through the National Handloom Day and launch of the India Handloom Brand has been pivotal in reviving the sector, making it technology driven, and positioning it in mainstream fashion.³²⁹

While exports in this sector are expected to be 82 billion dollars by 2021, this export figure was realized as 38.70 billion dollars in 2019 period³³⁰. Although there is consensus that there will be high technology transfer, innovation and argument-oriented work programs in this sector in order to maintain sustainable development in the future, no study has yet been announced under the Make in India program.

³²⁷ *Ibid.*

³²⁸ *Ibid.*

³²⁹ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p. 142.

³³⁰ *Ibid.*

II.I.III.XX. Thermal Power

Thermal power is a definition of how quickly heat is generated. For most energy systems, such as a gasoline engine, thermal power is how fast fuel is converted to heat. These heat engines generate this heat in order to achieve useful work. Most commonly, thermal power refers to the heat input of a boiler in a power plant in order to generate electricity. In other contexts, it may be a measure of output, such as radiant heat given off by the sun³³¹.

The Thermal Power Sector in India has witnessed a major addition in capacity in the last two years, making India the fifth largest installed capacity in the world. The government aims to generate two trillion units of energy by 2019 and is undertaking initiatives aimed at doubling the current production capacity to provide 24x7 electricity for residential, industrial, commercial and agriculture use³³².

The projects, incentives and plans announced by the government on Thermal Power within the scope of the Make in India program are as follows:

- National Tariff Policy-2016,
- Ultra-Mega Power Projects (UMPPs),
- Deendayal Upadhyaya Gram Jyoti Yojana,
- Integrated Power Development Scheme,
- 100% FDI is allowed under the automatic route³³³.

II.I.III.XXI. Tourism and Hospitality

Hospitality and Tourism is a big market for India. India, which offers tours in many areas such as adventure tourism, health, cultural tours, rural and nature tours, movies, etc., is a country that has an attraction for tourism. Improvement efforts and new investments for this sector will increase the potential for the number of tourists and income coming to India.

³³¹ Bethel Afework, Jordan Hanania, Kailyn Stenhouse and Jason Donev, *Thermal Power*, 2020 (https://energyeducation.ca/encyclopedia/Thermal_power) Last Access: 05.02.2021

³³² Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p. 148.

³³³ <https://www.makeinindia.com/sector/thermal-power> Last Access: 05.02.2021

According to the Travel & Tourism Competitiveness Report-2019 published by the World Economic Forum, India ranks 34th in the tourism industry in the world³³⁴. This market, which has a total contribution of 250 billion to India's GDP, is expected to reach a contribution of 500 billion dollars in 2028. It is estimated that this sector, which constitutes 8% of total employment as of 2019, will grow both in the number of incoming tourists and employment³³⁵.

All the policies, incentives and implementations the government has made in this sector within the scope of the Make in India program are as follows:

- Swadesh Darshan Scheme,
- National Mission in Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD),
- 100% FDI is allowed under the automatic route in tourism, hospitality, tourism construction projects including hotels, resorts and recreational facilities³³⁶.

II.I.III.XXII. Wellness

India, which is central in this sector in the world with many alternative medicine and pharmaceutical methods, has started to make planned growth programs within this sector in order to expand further and expand its experience in this sector with the Make in India program.

The need for traditional alternative medicine methods such as alternative therapeutic health services and value-oriented mass products is increasing day by day due to changes in living standards and social life, and the health sector and the pharmaceutical industry have become a market and serious damages on human health. Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH) department was established to turn this change into the market and present it to people. India, which has been an expert in both preventive and curative health services from past to present, has also determined various programs and missions within the scope of

³³⁴ *Ibid.*

³³⁵ Ficci, *India Inbound Tourism; Unlocking the Opportunity*, New Delhi: Ficci Publishing House April 2019

³³⁶ <https://www.makeinindia.com/sector/tourism-and-hospitality> Last Access: 05.02.2021

the Make in India program to accommodate sectors such as homeopath in AYUSH's system and to develop this sector.

Coming over to the figures, the AYUSH sector has an annual turnover of around INR 120 Billion³³⁷. The sector is dominated by micro, small and medium enterprises, accounting for more than 80% of the enterprises, located in identifiable geographical clusters. The products market is worth about INR 40 billion with over-the-counter products such as digestives, health food and pain balms, constituting almost 75% the segment. India has 9,000 units engaged in the manufacture of AYUSH drugs³³⁸. The biggest markets for Indian herbal products are Western Europe, Russia, USA, Kazakhstan, UAE, Nepal, Ukraine, Japan, Philippines, Kenya etc. India has over 8,000 medicinal plants found in the Himalayan region; around its coastline, deserts and rainforest eco-system. More than 32 million people are practicing yoga in the USA alone. The demand for yoga across the world is growing exponentially. The growing wellness industry has attracted a large number of domestic as well as international investors. Companies are actively seeking public and private equity investments to fuel their growth. The established ones are pursuing revenue maximization through product and service diversification and are exploring new global and domestic markets. Franchising is emerging as a popular option for scaling up. Also 100% Foreign Direct Investment (FDI) is permitted in the AYUSH sector³³⁹.

Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (PMJAY) was launched on September 2018 by Prime Minister Narendra Modi. The objective is to provide better healthcare and treatment to the poorest of poor and underprivileged sections of society. The scheme envisions health assurance of five lakh rupees per family per year and will benefit over 50 crore people³⁴⁰.

It is obvious that new missions and umbrella programs will come in the future in order to develop all these sectors in the future and to take the targets further. While new targets and programs will be announced in the sectors that have achieved the target,

³³⁷ Ashwini Kumar Kushwaha and Manoj Kumar Singh, "Make in India; An Ayurvedic Prospective", *Make in India; turning Dream into Reality*, ed. R.P. Shukla and R.S. Mishra, New Delhi: Bharti Publications, 2016, p. 153

³³⁸ B.M.N. Kumar and Manoj Kumar Singh, "Role of Indian System of Medicine (Ayurveda) in Make in India", *Make in India; turning Dream into Reality*, ed. R.P. Shukla and R.S. Mishra, New Delhi: Bharti Publications, 2016, p.150.

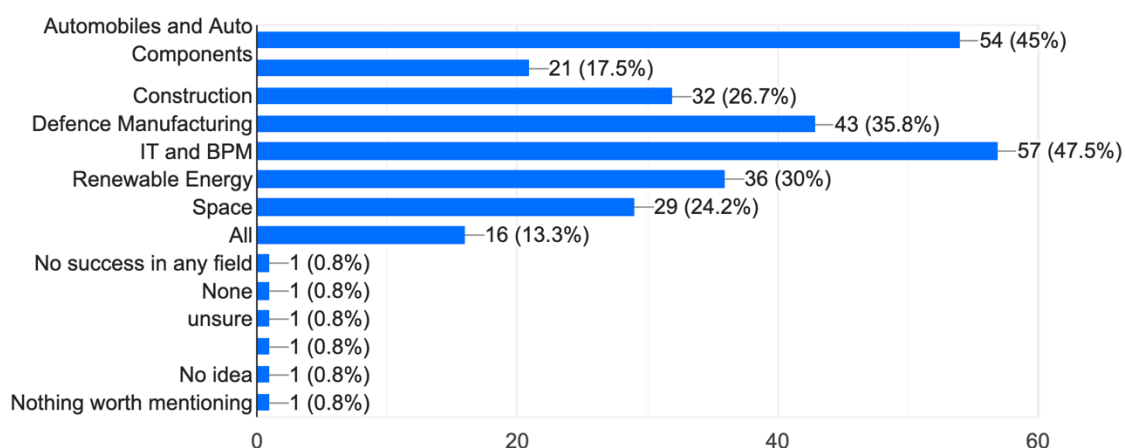
³³⁹ Akshar, *Why, India Should Explore Business Potentials in Yoga*, 31 October 2017 (<https://www.entrepreneur.com/article/303931>) Last Access: 05.02.2021

³⁴⁰ Sunil Kumar Gupta, *Make in India; A Compendium of Business Opportunities & Laws in India*, p. 164.

in programs that are far from the targets, the consistency of the main targets or other alternatives will be studied. The results of the survey questions asking the successful and unsuccessful sectors of the sectors announced under the Make in India program are as follows:

The projects and missions within the scope of the 'Make in India' program have achieved success in the following sectors:

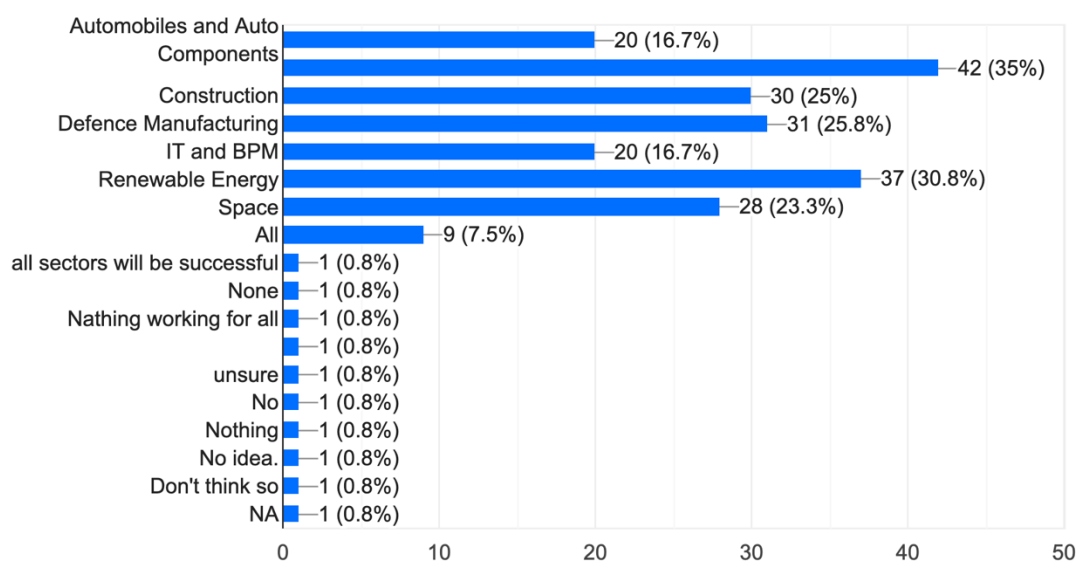
120 responses



Graph: Question-24 in the Questionnaire

Projects and missions under the 'Make in India' program have not been very successful in the following sectors:

120 responses



Graph: Question-25 in the Questionnaire

According to the results of the survey, people who participated in the survey stated that they were successful in the automobile sector, while the distributions in other sectors are generally equal. This leads to the conclusion that there is no common consensus on progress in the sectors. In addition, stating that it had no idea in the answers can be interpreted as not fully clarifying whether there is progress in the sector in general.

II.IV. New Mindset

Sustainable development plans and programs emerging in the developing countries within the globalization adventure have made it more attractive for the development programs of the developing countries as a result of market searches with high fund returns from developed countries under conditions where production factors, information, capital and final resources are free to circulate.

In this respect, in order for developed countries to invest in developing countries, it is necessary to provide guarantees that they can protect themselves from the negativities in the investment process and to guarantee that the rights of the investor will be protected. As part of the promotion of this program within the scope of the Make in India program, the title of "New Mindset" gained meaning as a solution for this problematic and the guarantee of the state was in the direction of sharing itself with every investment made.

According to the statement made on the official website of program Make in India, the Indian government explains the "New Mindset" issue as follows:

“Industry is accustomed to see Government as a regulator. ‘Make in India’ intends to change this by bringing a paradigm shift in how Government interacts with industry. The Government will partner industry in economic development of the country. The approach will be that of a facilitator and not a regulator.”³⁴¹

In short, the Indian government has announced the "New Mindset" approach, which is one of the four pillars of this program, both to eliminate investors' reservations and to

³⁴¹ https://www.pmindia.gov.in/en/major_initiatives/make-in-india/ Last Access: 05.02.2021

make the Make in India program more efficient to make investments more profitable. Within the framework of this understanding, the government announced that all the investments to be made and the industry sector would not be a regulator, and improvements in the production area and all sectors will be made together with the companies in these sectors. The main goal in making such a decision is to both effectively improve production and to ensure the security and continuity of investments. Within the scope of the Make in India Initiative program, all plans and programs such as program promotion, incentive announcements, etc. continue to be made in every sector and investment countries regularly with this idea.

II.II. Foreign Direct Investment (FDI)

FDI refers to the investments made by any company to acquire a company in another country or to expand some of its existing business in other countries. Investments made in this context may be through establishing a company in a foreign country, buying the shares of another company or establishing a partnership. Investments in other foreign companies or institutions provide a higher degree of control over that company. In addition, the surplus of FDI investments increases the growth expectations of that country's economy. In this respect, when countries are insufficient in various fields from production and want to expand their trade volume, they focus on policies that encourage FDI. Within the scope of the Make in India program, the main goal of FDI policies in India is maximize investments for sustainable development efficiently and to have a say in the world in the areas where investments are made in the future.

FDI also refers to the net investment that comes from the purchase of the minimum management share of the shares with 10% or more voting rights in the economy in which the investment is made. Activities, other than 10% covered in FDI policy require government approval which involves a decision by the Foreign Investment Promotion Board, Department of Economic Affairs, and Ministry of Finance. In this context, every country has rules that determine the business of foreign companies and countries. There are two main routes for those who want to invest in this way in India: Automatic Route and Government Route. No prior approval from the Indian government is required to invest in areas within the Automatic Route. However, various prior approvals are required for investments to be made under the Government

Route. Those who want to invest within the scope of FDI generally act within the announcement and information of the governments. In this case, investments within the Government Route can be diversified into four categories:

- **Category 1:** Sectors in which FDI is permitted up to 100% under Automatic Route
- **Category 2:** Sectors in which FDI is permitted up to 100% under Government Route
- **Category 3:** Sectors in which FDI is permitted up beyond certain limit with Government
- **Category 4:** Sectors wherein FDI is permitted up to certain limit under both Government and Automatic routes subject to applicable laws/ regulations security and other conditionalities.³⁴²

Foreign Investment Facilitation Portal (FIFP)³⁴³ is the new online single point interface of the Government of India for investors to facilitate Foreign Direct Investment. This portal is designed to facilitate the single window clearance of applications which are through approval route. Upon receipt of the FDI application, the concerned Administrative Ministry/ Department shall process the application as per the Standard Operation Procedure (SOP)³⁴⁴. Government approval is required for eleven sectors today. These are:

- Mining, related to FDI in Small Scale
- Defence Sector, related to FDI in Small arms
- Broadcasting
- Print Media
- Civil Aviation
- Satellites
- Telecom
- Private Security Agencies

³⁴² *FDI Policy & Process*, 2016 (<https://www.fdi.finance/fdi-policy>) Last Access: 05.02.2021

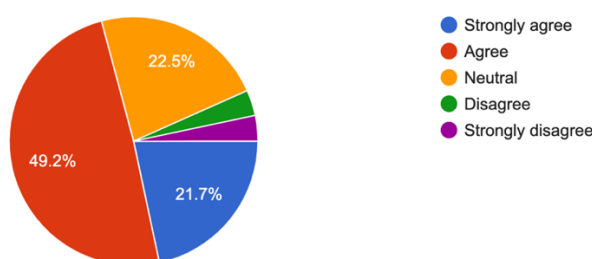
³⁴³ For the Portal: <https://fifp.gov.in/> Last Access: 07.02.2021

³⁴⁴ *Ibid.*

- Trading (Single/Multi Brands and Food Processing)
- Financial services, not regulated by more than one regulator, and Banking Public and Private
- Pharmaceuticals.

Investing in another country's economy, buying into a foreign company, or otherwise expanding your business abroad can be extremely financially rewarding and might provide you with the boost needed to jump to a new level of success³⁴⁵. However, FDI carries risks, and it is important for a country to evaluate the economic climate thoroughly before start to invest. In order to minimize the risk of investments under the Make in India program, the government prefers to take a different route. Under this program, the government offers to consult investors for both 'Ease of Doing Business' and FDI investments and aims to support investor companies to minimize risks. Companies that are considering investing generally make various advantages and disadvantages analyses before investing in a country or company. Freedom and risk analysis in the areas to be invested enables companies to make clearer decisions in preference management. The answers to the question in the questionnaire related to FDI impacts on India are as follows;

Foreign Direct Investment(FDI) expedients under the 'Make in India' program have a positive impact on India's development policies.
120 responses



Graph: Question-9 in the Questionnaire

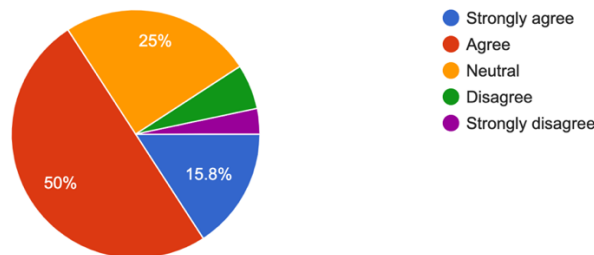
³⁴⁵ Archana Saini, "FDI in India", *International Research Journal Commerce Arts Science*, Vol.6, Issue.9, 2015, p.241.

In the questionnaire, in which the positive effects of the FDI were tested, 21.7% of 120 people strongly agree with this idea, while 49.2% agree. 22.5% is neutral. The rate of those who disagree and strongly disagree are 3.3%. This result shows that FDI programs have a positive effect on the participants.

However, the answers given by the participants to the questionnaire, in which the FDI's unemployment-reducing effect was tested, are as follows;

FDI programs under the 'Make in India' program have an impact on reducing unemployment and improving workforce quality in India.

120 responses



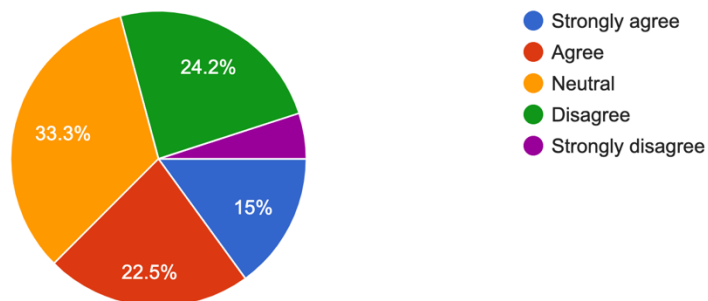
Graph: Question-10 in the Questionnaire

In this question, which has a very positive result, half of the participants Agree with it, while 15.8% strongly agreed and 25% neutral. The rate of those who disagree and strongly disagree is quite low.

In another question asking about the negative effects of FDI on economic development, the results are as follows;

FDI policies impact negatively on the economic development of developing countries.

120 responses



Graph: Question-11 in the Questionnaire

In the answers given, 15% of the participants strongly agreed with the negative effects of FDI on development, while 22.5% agreed with this situation and 33.3% remained neutral. However, 24.2% of the participants gave disagree to this question, while 5% completely opposed it. This situation leads to the conclusion that the view that FDI has a negative impact on development is not supported and accepted but rejected. In this case, the general opinion in the survey is that this problem is neutral.

FDI is currently an important financial resource for India's economic development. The main target of FDI is to create incentive opportunities with tax exemption, relatively lower wages and costs, and to gain technical knowledge over time as an investment in various sectors and areas and to create solutions to unemployment by creating employment. Incentive programs under the Make in India program have significantly increased FDI investments till date.

According to Department of Industrial Policy and Promotion (DIPP), the total FDI inflows soared by 27.9 per cent to US\$ 49.97 billion during FY2020, as compared to US\$ 36.0 billion in FY2014³⁴⁶. FDI into India through the Foreign Investment Promotion Board (FIPB) route shot up by 43 per cent to US\$ 44.37 billion in the year FY2019 as against US\$ 25.3 billion in the previous five years, indicating that government's³⁴⁷. Data for FY2020 indicates that the increase in the FDI inflows was primarily driven by investments in computer software & hardware and services sector. Within Telecommunications, trading, Infrastructure, Automobile Industry witnessed higher FDI inflows, whereas Pharmaceuticals and Tourism drove the services inflows³⁴⁸. During FY2020, India received the maximum FDI equity inflows from Singapore (US\$ 14.67 billion), followed by Mauritius at US\$ 8.241 billion, Netherlands (US\$ 6.5 billion), the US (US\$ 4.223 billion) and Japan (US\$ 3.226 billion)³⁴⁹. Healthy inflow of foreign investments into the country helped India's Balance of Payments (BoP) situation and stabilised the value of rupee³⁵⁰.

Within the scope of the Make in India program, privatization in FDI policies has been increasing day by day. The government also paved the way for privatization

³⁴⁶ Department of Industrial Policy and Promotion (DIPP), "Fact Sheet on Foreign Direct Investment From April, 2000 to June, 2020", *Quarterly Fact Sheet*, New Delhi, 2020
(https://dipp.gov.in/sites/default/files/FDI_Factsheet_June20_20October2020.pdf)

Last Access: 05.02.2021

³⁴⁷ *Ibid.*

³⁴⁸ *Ibid.*

³⁴⁹ *Ibid.*

³⁵⁰ Saini, "FDI in India", p. 242.

in Railways, especially in order to increase the functionality of industrial corridors. In addition, serious steps were taken in privatization in the Defence Industry and the Space studies. The Government of India recently relaxed the FDI policy norms for Non-Resident Indians (NRIs) and, under this, the non-repatriable investments made by the Persons of Indian Origin (PIOs), Overseas Citizens of India (OCI) and NRIs will be treated as domestic investments and will not be subject to FDI caps. The government has also raised FDI cap in insurance from 26 per cent to 49 per cent through a notification issued by the DIPP.³⁵¹

Finally, the current situation of the sector Make in India program areas covered by FDI investments can be summarized as follows:

- Automobile Sector, allowing 100% FDI under the automatic route, and FDI equity inflows in Automobile industry amounted to \$18bn FDI till date. Share in India's GDP of this industry is 7%,
- Chemicals, 100% FDI Chemical Industry in India is allowed under the Automatic route, except in the case of certain hazardous chemicals. Export's share of this sector is 10% till date,
- Construction, 100% FDI in construction development sector under automatic route is permitted in completed projects for operations and management of malls, townships, complexes, and business constructions; and 100% FDI in real estate in India allowed under the automatic route for urban infrastructures. Share in India's GDP of this sector is 9%,
- Media, up to 74% FDI in the Media sector is allowed in Teleports, DTH, mobile TV; up to 49% FDI in entertainment media allowed under the automatic route and 100% FDI media and entertainment allowed in publishing/ printing of scientific technical magazines/ journals under the government route,
- Petroleum and Natural Gas, 100% FDI petroleum and natural gas is allowed in exploration activities under the automatic route, and 49% FDI petroleum sector is allowed by the Public Sector Undertakings (PSU),
- Capital Goods, 100% FDI in capital sector is allowed under the automatic route,
- Civil & Aviation, up to 100% FDI in civil aviation in India is permitted in Non-scheduled air transport services under the automatic route,

³⁵¹ *Ibid.*

- Electronic Systems, 100% FDI in electronic systems sector is allowed under the automatic route. Sector growth is 26% annually till date,
- Food processing, 100% FDI in food processing is allowed through government approval route for trading. Share in India's food market 32%, and share in total employment is 11%,
- Railway, 100% FDI in railway industry is allowed under the automatic route,
- Renewable Energy, up to 100% FDI in renewable energy sector in India and distribution projects is allowed under the automatic route,
- Retail and E-Commerce, 100% FDI is allowed under the automatic route for single-brand retail trading,
- Roads & Highways Sectors, 100% FDI is allowed under the automatic route,
- Telecommunications, 100% FDI in telecommunications sector is allowed in the Telecom, wherein up to 49% FDI is allowed through the automatic route and beyond 49% FDI in telecom sector under the government route. Share in India's GDP of this sector is 7%,
- Tourism & Hospitality Sectors, 100% FDI in tourism sector is allowed, and 100% FDI in tourism and hospitality sector is allowed including tourism construction projects like the development of hotels, resorts and recreational facilities,
- Auto Components, 100% FDI is allowed under the automatic route, and share in India's GDP of the sector is 2%,
- Biotechnology Sector, 100% FDI for biotechnology sector is allowed under the automatic route for green-fields pharma; 100% FDI biotechnology is allowed under the government route for brownfield pharma, and up to 100% FDI in biotechnology in India is allowed under the automatic route for the manufacturing of medical devices,
- Gems and Jewellery, 100% FDI in Indian diamond industry or gems and jewellery sector under the automatic route,
- IT sector, up to 100% FDI is allowed in data processing, software development and computer consultancy services under the automatic route, and 100% FDI in the IT sector in India is permitted in B2B E-commerce. Share in India's GDP of this sector is 8%,

- Mining Sector, 100% FDI in mining in India is allowed under the automatic route,
- Pharmaceuticals, 100% FDI in pharmaceuticals in India is allowed under the automatic route for green-field pharma,
- Ports and Shipping, 100% FDI in Ports and Shipping is allowed under both government and automatic route,
- Thermal Power Sector, 100% FDI thermal power is allowed for generation from all sources, transmission and distribution of electric energy and Power Trading under the automatic route; 49% FDI in Thermal power sector in India is allowed in Power exchanges under the automatic route,
- Healthcare, 100% FDI in healthcare sector in India is allowed under the automatic route projects; and 100% FDI in medical devices for investments in brown-fields projects is permitted under the government route³⁵².

II.II.I. Beko's FDI Program in India and its Partnership with Tata Influences the Indian Market

Today, while developing countries experience capital and resource shortages in their economic development processes, FDI is generally preferred to solve such problems. FDI refers to investments made by firms located in one country to firms located in another country, by purchasing a firm in a country, providing the founding capital for a newly established firm, or increasing the firm's capital. The companies that invest bring technology transfer, business knowledge, and control authority of their investors along with the money. Undoubtedly, investments are of great importance in the economic development and growth of countries. In countries with insufficient capital or production skills, the most important way to ensure the product is FDI. In this regard, it is a predominant view that FDI is key to growth and development.

Zhang discussed the impact of FDI on economic growth in four primary sections:

- contribution to the national income, capital accumulation, and employment of the host country,

³⁵² All figures, rates and investment information are provided according to the official website (www.dipp.gov.in) of Department of Promotion of Industry and Internal Trade (DPIIT) and the official website (www.fdi.finance.gov.in) of FDI-India. Last Access: 05.02.2021

- contribution to the export and foreign trade of the host country,
- management experience in the host country, qualified workers added to the production network, donations made to the market of the country where the partnered company is located,
- contributions to technology transfer and IPR³⁵³.

Some claim that FDI contributes to countries' economic development and growth, and those arguments that it has adverse effects. While Blattner claims that the balance of payments has been disrupted by transferring excess profits³⁵⁴, Nunnenkamp, on the other hand, argues that foreign investments prefer a skilled and low-wage workforce, reducing the FDI's relationship to increase employment and increase welfare in developing countries³⁵⁵. Besides, Kaymak claims that the high capital of foreign companies provides unfair competition against domestic enterprises that cannot find a match through their superior aspects such as advanced technology and management knowledge³⁵⁶; Saatcioglu claims that the fact that they produce technology in their own countries and create technological dependence by importing these technologies affects the economic growth of the host countries negatively³⁵⁷.

Frankly, in my literature review for the negative aspects of FDI, it has not been agreed with other studies, except Saatcioglu. As Blattner says, a change in the balance of payments is possible in the short term, but the invested company will grow itself with the new investment and create a high-scale balance of payments in a long time. Companies that make assets also transfer from their expert staff within the management and organization. Nunnenkamp's ideas are also empirically correct, but the point that should not be forgotten here is that if a country needs FDI for economic development, this situation is examined with the number of skilled workers and poverty rates country

³⁵³ Kevin H. Zhang, "Foreign Direct Investment and Economic Growth in China: A Panel Data Study for 1992-2004", *China and Asian Economies*, China: June 24-25, 2006, p.3.

³⁵⁴ Tobias S. Blattner, what drives foreign direct investment in Southeast Asia? A dynamic panel approach, June 21, 2006, p.6. (<https://faculty.washington.edu/karyiu/confer/seoul06/papers/blattner.pdf>) Last Access: 10.01.2021

³⁵⁵ Peter Nunnenkamp, "To What Extent Can Foreign Direct Investment Help Achieve International Development Goals", *Kiel Institute for World Economies*, Kiel Working Paper, No.1128, October 2002, p.27.

³⁵⁶ Hasan Kaymak, "Yabancı Dogrudan Yatirimleri Arttirmek icin Tesvikler gerekli ve/veya Yeterli mi? (Are Incentives Necessary or / and Sufficient to Increase Foreign Direct Investment?)", *Maliye Journal*, No.149, May-December 2005, p.81.

³⁵⁷ Cem Saatcioglu, *Dogrudan Dis Yatirimlar ve Turkiye (Foreign Direct Investment and Turkey)*, ISMMMO Finance Journal, Vol12, N. 6, October,2002, p. 29.

before the transformation of basic worker wages. Contrary to what Kaymak says, investments in countries are not one-sided. The countries' competition institutions where investment is made for unfair competition are not in vain; the possible incompatibility situation is determined and decided by these institutions.

It has been generally agreed with Saatcioglu's views. However, it should not be forgotten that investing companies move their capital from the countries they support into their home countries. Although this situation seems to be detrimental to the investing country, in essence, these companies find themselves a place in the market of the countries they invest in by exceeding the customs tax and quotas. In this respect, FDI policies of developing countries are of great importance for the strengthening of the industry and the production wing of the country. In this respect, within the Make in India program's scope, India's primary goal today within the scope of FDI policies is reducing unemployment, technology transfer, domestic and foreign companies' partnerships with domestic companies. The entrance of the Beko firm to the Indian market is of great importance in this respect.

Beko is a white goods company protected by Koc Holding in 1954 as a joint venture with Bejerano. Beko, which has sales channels in 150 different countries worldwide, is the best-selling white appliances brand in Europe and has factories in many regions' white appliances sector. It has also acquired many electronic companies such as Altus and Grundig after the 2000s. The Koc Group, which is the most FDI white appliances company globally, has entered the Indian market as a result of its partnership with Voltas within the scope of the Make in India program³⁵⁸.

Protected by the partnership of Voltas, the main shareholder of Tata, India's largest group of companies, Voltbek Home Appliances first laid the foundations for the refrigerator factory while introducing Voltbek branded products country market. This facility, which started its activities in Gujarat in 2019, aims to produce Voltas Beko branded refrigerators for the Indian market in the first place³⁵⁹. This Voltas Beko company, which was established, also supplies white goods such as washing machines, dishwashers, ovens, and microwaves for the Indian market from abroad and brings them

³⁵⁸ Gaye Aksongur Yavuz, "Arcelik, Kuresel Salgina Karsin Operasyonel ve Finansal Olarak Guclu Goruntusunu Koruyor (Arcelik Maintains Its Operationally and Financially Strong Image Against the Global Epidemic)", *Arcelik Company Report*, September 25, 2020, p.4.

³⁵⁹ Varun Jain, *Voltas Beko invests Rs.1000 cr to set up first factory in India*, January 30, 2020 (<https://retail.economictimes.indiatimes.com/news/consumer-durables-and-information-technology/consumer-electronics/voltas-beko-invests-rs-1000-cr-to-set-up-first-factory-in-india/73767031>) Last Access: 10.01.2021

to consumers. It is aimed to localize these products, which are imported and sold in the first place, with the new factories to be established in the future. Besides, the Beko company, which shifted the R&D and technology unit of the products to be produced for the Indian market to India, aims to increase its market share in the market by using Voltas' brand power and its expertise in retail sales channels³⁶⁰.

According to the statements made by the CEO of Arcelik company, while the company is aimed to reach a double-digit market share in the first place, he stated that they had established the refrigerator factory in India in the early stage in line with this goal. In the following periods, a turnover exceeding one billion dollar and a market share of over 10% He stated that they aimed³⁶¹. He noted that the refrigerator production facility established in Gujarat for the first stage started with 500 people in the early stage. They sought to increase this number to more than two thousand after reaching the number of qualified workforces in the following period³⁶².



Photo: The first Refrigerator Manufacturing Facility in Gujarat

Voltas Beko company, which started its activities as a result of the approval of this partnership by the Indian Competition Board, will be utterly domestic in the first

³⁶⁰ Sirin Payzin, *Interview with Levent Çakıroğlu*, CEO of Koç Holding (<https://t24.com.tr/video/arcelik-hindistan-pazarina-yasamla-giriyor-kadinlar-istihdam-edilecek-sari-ye-ozel-camasir-makinasi-ve-cicekli-buzdolaplar-uretilecek,26093>) Last Access: 10.01.2021

³⁶¹ *Ibid.*

³⁶² Hayri Cetinkaya, *Büyümeği gördü, rotayı Hindistan'a kırdı (Saw growth, broke course to India)* (<https://www.sozcu.com.tr/2020/ekonomi/buyumeyi-gordu-rotayi-hindistana-kirdi-5600672/>) Last Access: 10.01.2021

place. The Voltas Beko firm, which will supply other white appliances from abroad, was established in cooperation with 49% Ardutch B.V. 1% Koc Holding, 49% Voltas, and 1% Tata Investment Corporation Limited (TICL)³⁶³. As a result of my interviews with Beko company officials, they stated that this partnership's primary goal is to combine Voltas' sales channels and market knowledge with Beko's product knowledge and skills to get a share in the Indian market. Stating that they first started negotiations with the Tata group in 2010, CEOs of the company Cakiroglu noted that the refrigerator penetration in India is 36%, which means that there is no refrigerator in 64 of India's homes. For this reason, he states that the refrigerator is seen as furniture for homes. Cakiroglu indicated that they used eight different flower designs in the fridge and visited 7,500 families before starting production. Cakiroglu stated that they detected too much turmeric and similar spices used in meals. It is complicated to remove such sauces' stains and said that they would produce a washing machine-specific to India to clean such spaces more efficiently. Although this seems like a small detail, it is also a small example of what kind of R&D and innovation work Beko will do in the future.



Photo: Refrigerator models planned to be produced for India

³⁶³ Public Disclosure Platform, *Arcelik's New Business Relationship: About the Company to be Established in India*, September 01, 2017. (<https://www.kap.org.tr/tr/BildirimPdf/608786>) Last Access: 10.01.2021

The annual report published by the Beko company in 2019 included Indian initiatives a lot.³⁶⁴ Announcing that R&D and innovation will be wholly indigenous for the Indian market, Beko also supports all campaigns launched for the employment of women within the scope of the Make in India program and plans to provide technical support to local companies in the whole country except Gujarat for the regional development of India³⁶⁵. In the report, which states that they will include India in their annual social development report, they will ultimately stick to the support of qualified workers and personnel to be evaluated in their factories and companies³⁶⁶. In addition, Beko company plans to support renewable energy studies with the Environment and cleaning programs developed under the Make in India program. He had been preparing various innovative programs that Beko company uses in its factories since 2014. In addition, Beko aims to participate in all kinds of plans and programs that both develop its activities and contribute to the Indian market, within the scope of the Make in India program. In addition, Beko company has case studies that support innovation studies for such programs and innovation studies³⁶⁷.

As a result, another innovative initiative of the FDI incentives created within the Make in India program has reached the local market's impact. This partnership is essential in terms of being the fruit of the FDI policy aimed to be realized within the Make in India program in the country and as an example to other companies in the production and industrial sectors in the upcoming period.

Such partnerships are of great importance for developing countries. As a result, a foreign company and a local company merged with the product to be imported from abroad and formed a country's production channel. Employment is provided in this production adventure; it transfers technology to the country and performs R&D. In other words, the gem raises qualified workers and reduces the country's foreign dependency. In this respect, Beko and Voltas partnership is of great importance in terms of both seeing the growth and ripening of the fruits provided by the Make in India

³⁶⁴ *Beko-Voltas Annual Report 2019-2020*, (<https://www.voltas.com/assets/pdf/20200218/Annual-report-2019-20.pdf>) Last Access: 10.01.2021

³⁶⁵ *Ibid.*

³⁶⁶ *Ibid.*

³⁶⁷ <https://www.beko.com/us-en/about-beko/News-Events/case-study-on-university-of-maryland-s-solar-decathlon-home--rea> Last Access: 06.02.2021

program and its contribution to India's development. Of course, this initiative has just been created. In the future, the company will be more clearly interpreted with the increase in annual reports, the comments to be taken from the products used, and the road maps to be determined by the shaping in the company's management and organization scheme.

II.III. Intellectual Property Rights (IPR)

IPR refers to the legal rights of ideas or designs in industrial, scientific, intellectual or artistic fields. These legal rights protect the rights of the producers by giving them various rights to control their use. Like other acquired rights, IPR is a property that can be owned, sold or purchased. With the rapid globalisation and opening up of the Indian economy, “Intellectual Capital” has become one of the key wealth drivers in the present international trade. Intellectual property rights have become significantly conspicuous on the legal horizon of India both in terms of new statutes and judicial pronouncements³⁶⁸.

In India, the IPR was determined and accepted by a policy adopted on May 12, 2016, after long consultations with 31 departments of the Indian government and experts and government officials from five different foreign countries³⁶⁹. The purpose of this decision is to effectively protect all works and intellectual property rights under the Make in India program and to encourage creativity / innovation. IPR, protected under the coordination of Department of Industrial Policy & Promotion (DIPP), has been authorized to coordinate and supervise the development of this area in the future.

The official website of the Make in India program has announced that there will be seven main objectives for IPR undertaken by identified nodal ministry/ department:

- IPR Awareness: Outreach and Promotion; to purpose of create public awareness about social, economic and cultural benefits of IPRs,
- Generation of IPRs, to stimulate the generation of IPRs,

³⁶⁸ Vijay Pal Dalmia, *Intellectual Property Laws in India*, 13 December 2017 (<https://www.mondaq.com/india/trademark/654712/intellectual-property-laws-in-india-everything-you-must-know>) Last Access: 05.02.2021

³⁶⁹ Department of Industrial Policy & Promotion, *National Intellectual Right Policy*, 2016, p.7.

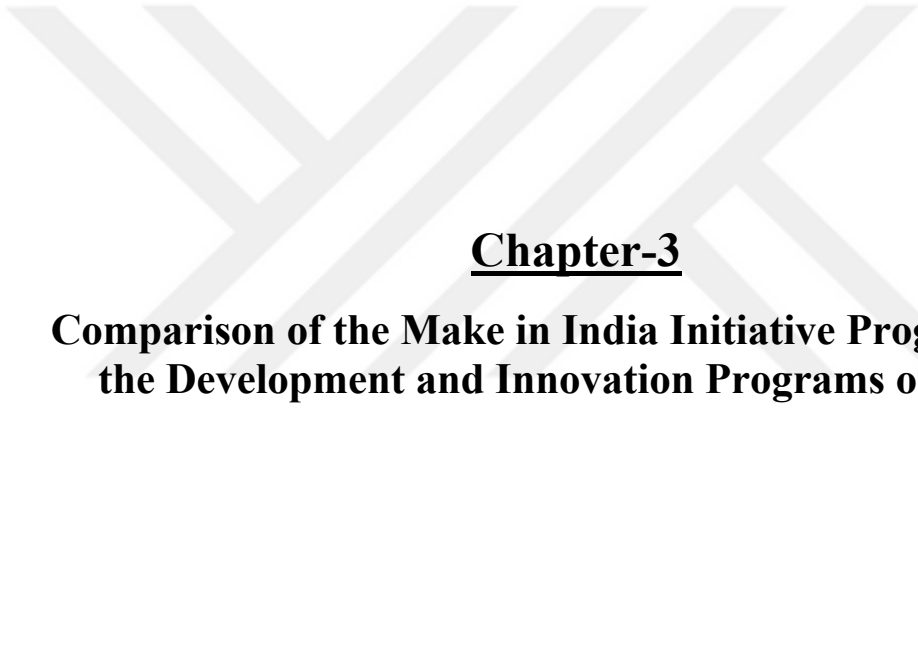
- Legal and Legislative Framework, to have effective IPR laws, which balance the interest of rights owners with larger public interest,
- Administration and Management, to modernize and strengthen service,
- Commercialization of IPRs, to get value for IPRs through commercialization,
- Enforcement and Adjudication, to strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements,
- Human Capital Development, to strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs³⁷⁰.

The main objective of the Intellectual Property Facts on Make in India Initiative, as reflected in the Vision and Mission statements, is to create a dynamic IPR system in India³⁷¹. The main focus of this policy is related to the slogan “Creative India, Innovative India”, which subsequently is aligned to different government initiatives and missions in recent times that include “Make in India”, “Atal Innovation Mission”, “Start- Up India”, and “Stand-Up India” promoting creativity, innovation and entrepreneurship in the country. India IPR Policy lays down 170 actionable points with nodal Ministry/Department and sets in place an institutional mechanism for implementation, monitoring and review. It promotes a holistic and conducive ecosystem to catalyse the full potential of intellectual property for India’s economic growth and socio-cultural development, while protecting public interest³⁷².

³⁷⁰ <https://www.makeinindia.com/policy/new-initiatives> Last Access: 05.02.2021

³⁷¹ *Ibid.*

³⁷² Madhu Bala and Deepak Verma, “National Intellectual Property Rights Policy of India- A Review”, *Sensitizing and Imparting Awareness About Intellectual Property Rights Among Students*, Ed. Meenu Jain and Anita Moudgil, New Delhi: National Press Associates, 2018, p. 130.



Chapter-3

Comparison of the Make in India Initiative Program with the Development and Innovation Programs of China

III. Comparison of the Make in India Initiative Program with the Development and Innovation Programs of China

China, which is the most populous country today, has a culture and experience. It is known that the China's economy was a more developed region than Europe in the period until 1200 AD. While there were very high growth rates in Europe in the period that continued until the 19th century with the progress in Europe in the years 1200-1500 and the slowdown of the progress in this region; In China, this was the opposite. It is estimated that this situation continued until the establishment of the Republic of China in 1912. China became the second largest economy in the world towards the 2000s with the policies of opening the Chinese economy to the world in 1978, however, with various innovation programs and projects initiated in 2013, it is estimated that it will progress economically in the coming periods³⁷³. As a matter of fact, the rapidly growing Chinese economy in the post-1978 period has become the developing country with the highest foreign direct investment inflow after this period³⁷⁴. This situation has accelerated the growth process and technological development of the country. As a matter of fact, 320 thousand foreign companies registered in China from this period until 2001. And all this period of decline brought China into an introverted isolation process until the 2000s³⁷⁵.

With the establishment of the People's Republic of China by Mao Zedong in 1949 and the socialist regime that continued afterward, rather than pulling the development policies and development tools in China into the global system, kept these structures in socialist order³⁷⁶. This dominant political system made the planned distribution of the use of country resources under central government control and closed to the intervention of other countries. According to the People's Republic of China's official sources, it was formed by the unification of 56 different nations and many

³⁷³ Sebastian Peyrouse, "Discussing China: Sinophilia and Sinophobia in Central Asia", *Journal of Eurasian Studies*, Vol7, Np.1, 2004, p. 17.

³⁷⁴ Alaattin Kiziltan, "Tek Kutuplu Bir Dunyada Cin Halk Cumhuriyeti'nin Super Guç Olabilirliği (The People's Republic of China Can Become a Superpower in a Unipolar World)", Sivas, Turkey: *Cumhuriyet University Ibf Journal*, Vol5, No.1, p.57.

³⁷⁵ Mete Dibo and Deniz Aytac, "*Cin'de Buyume ve Kalkinma: Binyil Kalkinma Hedefleri Kapsaminda Bir Degerlendirme (Growth and Development in China: An Assessment within the Scope of the Millennium Development Goals)*", Eskisehir: Anadolu University of Social Sciences, p. 166.

³⁷⁶ Zeynep Caliskan, *Cin'in Ekonomi-Politik Stratejisi: Tarihsel Bir Yaklasim (China's Economic-Political Strategy: A Historical Approach)*, INSAMER, 25.02.2019, p.4.

nations. Peoples identified as Han makeup 91 percent of the population, from Beijing in the north to Canton in the south, and include the Hakka, Fujianese, Cantonese, and other groups³⁷⁷. However, some of these nations were on the agenda as they wanted to leave China. As a matter of fact, it is known that these demands of Tibet and Uygur regions, which have been continuing until today, continue³⁷⁸.

China had structured its economy since its establishment phase of development. Various incentives and investments supported the five-year development programs initiated for planned and sustainable economic development during the period. Both the country's political turmoil and the global order's movements brought various structural arrangements with these programs. In the first years of its establishment, orthodox models taken as an example from Soviet Russia were adhered to for many years. As a result, investments in industry, infrastructure, and financial institutions were directly made by the central government³⁷⁹. The management of the economy is entirely centralized; agriculture is collectivized; five-year development plans were made within the framework of central planning for economic development when moves such as expanding the resources to include issues such as directing resources to investment, consumption, and defence. Today, the 13th of these plans is implemented in China.

It is a common perception that China has been continuously trying to integrate into an international system during the period from its foundation to the present day, that China follows inconsistent foreign policies, and that its economy is continually moving towards a turbulent growth³⁸⁰. Gunes has categorized the changes in China's foreign policy as follows:

- 1949-1955: Establishment period and one-sided policy
- 1956-1962: Beginning of independent foreign policy
- 1962-1972: alliance with the USA and transition to state capitalism
- 1991 to till: the cycle of competition/cooperation with the USA³⁸¹.

³⁷⁷ Colin Mackerras, *China's Minorities: Integration and Modernization in the Twentieth Century*, New York: Oxford University Press, 1994, p.25.

³⁷⁸ Dru C. Gladney, *China's National Insecurity: Old Challenges at the Dawn of the New Millennium*, Asia-Pacific Center for Security Studies, 2001, p.7.

³⁷⁹ Ibid.

³⁸⁰ Wolfram Eberham, *A History of China*, Routledge Press, 2013, p.345.

³⁸¹ Hakan Gunes, *Cin Halk Cumhuriyeti Dis Politikasi: Donemler ve Dinamikler (Foreign Policy of the People's Republic of China: Periods and Dynamics)*, Ed. Faruk Sonmezoglu and Ozgun Erler Bayir, Istanbul: Der Press, 2014, p. 486-488.

Bell stated that the reforms carried out, in the same way, went through several stages. These are innovation programs that started in 1978-1984, 1984-1988, 1988-1991, and 1992³⁸². Four modernization movements, which took place from the Chinese National Congress in 1978 until 1985, constitute one pillar of these reforms. Within the scope of these programs, increasing the capacity of the country's science, technology, industry, defence industry and innovation studies in agriculture sectors were included³⁸³.

The banking and financial system reforms and improvements in the price system were among the most significant investments and reforms made during these periods. Until 1979, prices were generally set by the central government, and a two-part balance of costs was followed to support the countryside. According to this system, farmers were selling their products for the determined quota amount at the price determined by the central government. Until 1992, this system continued with various improvements. Since 1992, as a result of China's globalization initiatives, almost all industrial inputs have been left to free-market conditions³⁸⁴. With the establishment of the People's Bank of China in 1984 in the banking system, the banking system's commercial dimension was controlled by the Industrial and Commercial Bank of China. These two banks influenced the government's credit plan and monetary policy decisions³⁸⁵. In the continuation of these reforms, reasons such as eliminating subsidies in exports, the increase of foreign capital enterprises in international trade, and the depreciation of the currency resulted in a revival of exports. In 1992, private and collective enterprises were supported to form partnerships with foreign enterprises³⁸⁶. Although there were various crisis periods and adverse situations, these problems were overcome by financial regulations. The fact that world markets, trade, and globalization are new trends has resulted in China's emergence as an alternative market model in this period.

Of course, today's policies can now be described as the post-modern era of the steps and procedures taken in the past. Both the change in China's world view in 2015 and after, and the breakthroughs and innovation programs made after this period resulted in

³⁸² Micheal W. Bell, Kalpana Kochhar and Hoe Ee Khor, *China at the Threshold of a Market Economy*, International Monetary Fund, Washington: Occasional Papers, 1993. P44.

³⁸³ Abby Liu and Geoffrey Wall, *Human Resources Development in China*, Annals of Tourism Research, 2005, p.701.

³⁸⁴ Bell, Kochhar and Khor, *China at the Threshold of a Market Economy*, International Monetary Fund, p.44

³⁸⁵ R. W. Hafer and A. M. Kutan, "Economic Reforms and Long-Run Money Demand in China: Implications for Monetary Policy", *Southern Economic Journal*, Vol.60, No.4, 1994, p.941.

³⁸⁶ A. S. Bhalla, "Recent Economic Reforms in China and India", *Asian Survey*, University of California Press, Vol35, No.6, 1995, p.562.

China's transition to new policies on a global scale. In 2020 and beyond, it can be said that after the Covid-19 epidemic, these programs were replaced by security and policies for healing the wounds of the epidemic. Comparison of the Make in India program with the innovative programs and development policies of China, it is vital in terms of both improving efficiency for this program and comparing efficiency with alternative approaches, making use of it in regional plans and programs for the future. In this respect, the comparison of the five-year development programs of both countries, the evaluation of China's current innovation and development programs, and the comparative analysis of future plans and programs with the Make in India program are essential for increasing the functionality of this program.

III.I. Comparison of China and India's Five-Year Development Plans

The five-year economic plans that developing countries usually implement are of great importance both for the management of development and the economy's growth by subsidizing the country's production means. For this purpose, there are 12 five-year development plans implemented by China and India up to now. While China is currently implementing its 13th five-year development plan, India abolished implementing these plans in 2017 due to the development agency's closure and joint planning of its development programs with the National Institution for Transforming India (NITI) Aayog. Comparative analysis of these two countries' past five-year economic programs is essential for better understanding and explaining the current development programs and innovation programs of both countries.

China entered a fundamental structuring, initially taking the orthodox models taken as an example from Soviet Russia. The state directly controlled infrastructure, financial, and banking institutions³⁸⁷. With the first five-year plan (1953-1957), rapid industrialization was achieved, especially in iron and steel and heavy industry, and a growth of 5% in agriculture and 19% in the industry was achieved. With the 'Great Leap Forward' project coming to the fore in the second five-year plan (1958-1962), the

³⁸⁷ Gladney, *China's National Insecurity: Old Challenges at the Dawn of the New Millennium*, Asia-Pacific Center for Security Studies, p.7.

second five-year plan could not be implemented. The main goal aimed at Great Leap Forward' is the idea of creating self-sufficient rural communes³⁸⁸.

The third five-year plan (1966-1970) was abandoned in 1966 due to Mao's Cultural Revolution. As a result of Mao's government's evaluations, the fourth five-year development plan was created in 1970. In this period, while agricultural production increased by 51%, industrial production increased by 190%. As Dogra mentioned in his article, the targets were reported in reports published during this period³⁸⁹. In the fifth five-year development plan (1976-1980) published in 1971, the emphasis was placed on the economy's modernization. It was emphasized for the first time that the light manufacturing industry should be developed besides the heavy industry. With the sixth five-year development plan (1981-1985) put into practice in 1982, regulations for the market economy were made, and modernization programs were put into practice. While GDP increased by an average of 10% annually, the industry grew by 12%, and agricultural production increased by 8%³⁹⁰. The seventh five-year plan (1986-1990), which was put into effect in 1986, was named New Long Progress by Deng Xiaoping³⁹¹. During this period, there was an increase of 4% in agriculture, 7% in industry, 6% in national income, and 40% in foreign trade³⁹².

In preparing the eighth five-year development plan (1991-1995), the inequality in the sectoral and regional distribution of the previous programs' economic developments was seriously considered. This plan focuses on developing infrastructure planning, such as raw material, energy, communication, and transportation. In this plan, it was especially emphasized that the development move should be spread to the whole country equally, and programs were made to encourage Foreign Direct Investment³⁹³. In the ninth five-year development plan (1996-2000), interpretations of transition to a socialist market economy were made due to the central government, and these was an influence. In this context, it was planned to allocate extra resources and carry out

³⁸⁸ Robert M. Rosse, "The Working of Communist China's Five-Year Plan", *Pacific Affairs*, Vol.27. No.1, 1954, p.19.

³⁸⁹ Suvi Dogra, "India and China's 12th Year Plans: A Comparison of Changing Priorities", *ISAS Insights*, No. 146, 2011, p.4.

³⁹⁰ Dogra, India and China's 12th Year Plans: A Comparison of Changing Priorities, p.6.

³⁹¹ Barry Naughton, "Deng Xiaoping: The Economist", *The China Quarterly*, No.135, 1993, Cambridge University Press, p.503.

³⁹² Dogra, India and China's 12th Year Plans: A Comparison of Changing Priorities, p.4.

³⁹³ Troy Galloway, *Chinese Five-Year Plans: An Economic Catalyst?* CSL Publications, Issue Paper, Vol.11, 2011, https://csl.armywarcollege.edu/usacsl/publications/IP11_11.pdf (last accessed January 03, 2021)

innovation studies to achieve high efficiency³⁹⁴. The tenth five-year development plan (2001-2005) is a continuation of the previous project, and an average of 7% growth has been completed. Within this plan, the development of the socialist market economy continued, the establishment of a modern business system in state enterprises, the development of the social security system, and increasing the depth and breadth of participation in the international markets were determined as the primary goals. In the eleventh five-year development plan (2006-2010), like the previous two plans, plans were made to sustain China's socialist market economy's rapid and healthy development. A sustainable development model has been taken to achieve these five balances: rural areas and city connections, economic and social development, connecting the inner regions and the coastal regions, development of human and natural environment, domestic and international development³⁹⁵.

China implemented five-year development plans as follows:

- First Plan (1953-1957)
- Second Plan (1958-1962)
- Third Plan (1966-1970)
- Fourth Plan (1971-1975)
- Fifth Plan (1976-1980)
- Sixth Plan (1981-1985)
- Seventh Plan (1986-1990)
- Eighth Plan (1991-1995)
- Ninth Plan (1996-2000)
- Tenth Plan (2001-2005)
- Eleventh Plan (2006-2010)
- Twelfth Plan (2011-2015)
- Thirteenth Plan (2016-2020)
- Fourteenth Plan (2021-2025).

³⁹⁴ Angang Hu, "The Distinctive Transition of China's Five-year Plans", *Modern China*, Sage Publications, Vol.39, No.6, 2013, p.630.

³⁹⁵ *Ibid.*

The five-year development plans of India implemented today are as follows:

- First Plan (1951-1956)
- Second Plan (1956-1961)
- Third Plan (1961-1966)
- Plan Holidays (1966-1969)
- Fourth Plan (1969--1974)
- Fifth Plan (1974-1978)
- Rolling Plan (1978-1980)
- Sixth Plan (1980-1985)
- Seventh Plan (1985-1990)
- Annual Plans (1990-1992)
- Eighth Plan (1992-1997)
- Ninth Plan (1997-2002)
- Tenth Plan (2002-2007)
- Eleventh Plan (2007-2012)
- Twelfth Plan (2012-2017).

China's twelfth five-year development plan was published in March 2011, aimed to restructure the economy by encouraging domestic consumption in this program. Similarly, India's planning commission issued a report on the new development plan in 2012³⁹⁶. The main goal highlighted in this report was a faster, sustainable, and more inclusive growth model. This program is already the basic building block of the Make in India program. The documents published by both countries contain specific changes in the development factors of both countries. However, although the two countries' strategies in the goals are different, there are various similarities too. In this respect, while the main target in China's twelfth five-year development plan has shifted towards the quality of growth rather than the growth rate, in India, the consistency of the marks and the balance between the sectors has been focused on.

China, which achieved 8% growth in the twelfth five-year development plan, reached the target of 7% it set. In this period's analysis, it is generally stated that double-

³⁹⁶ Dogra, India and China's 12th Year Plans: A Comparison of Changing Priorities, p.2.

digit increases can also be achieved. Such targets are still avoided, considering that external factors may force double-digit growths or marks³⁹⁷. On the other hand, India set an annual growth target of 9% and achieved its target. In this respect, it can be said that the goals of both countries are close, and these goals have been completed. While China's performance is interpreted as the demographic return of the labour force, India's situation is formed due to the restructuring of the demographic structure and evaluating the market opportunities.

In both countries, the number of employable people is generally increasing in each period. This situation indicates that employers should be taken into account in plans and programs. However, it is also necessary to implement various programs to increase unemployment in the future. The Make in India program has additional job opportunities for 250 million people by 2025 and 100 million employment targets in the manufacturing sector. Besides, combating inflation is of great challenging for both countries. While China has a policy of keeping prices constant rather than specifying a target, India's main target has been to keep it below 5% in recent years. Besides, the increase in urbanization rate requires both countries to take various measures in this area. There were targets related to this subject in the Make in India program. The number of urbanizations is expected to increase by another 200 million in the next ten years³⁹⁸.

Similar incentives exist in both countries in the field of innovation. However, while China spends 2% of its total GDP on R&D³⁹⁹, India aims to make progress in R&D with incentives in manufacturing⁴⁰⁰. Also, both countries have made noticeable progress in terms of agriculture. While China seeks to have a total agricultural production capacity of 540 million tons in the coming period, India has announced its innovation and product development programs in this field⁴⁰¹. Under the Make in India program, India aims for steady growth of 5% per year.

³⁹⁷ Wayne M. Morrison, *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*, CRS Report, 2019, p.13.

³⁹⁸ Elfie Swerts, Denise Pumain and Eric Denis, "The Future of India's Urbanization", *Futures*, Paris: Elsevier, 2014, p.47.

³⁹⁹ Morrison, *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*, p.11.

⁴⁰⁰ Sabyasachi Saha and Prativa Shaw, *A review of R&D and Sectoral Incentives in Manufacturing in Industrialized and Emerging Economies: Lessons for 'Make in India'*, RIS Discussions Papers, New Delhi, 2018, p.7.

⁴⁰¹ *Ibid.*

Besides the similarities of the two countries' five-year economic programs, there are differences and various orientations. For example, in India's twelfth five-year plan, it has been mentioned that the expenditures in the development sector were transferred from the public sector to the private sector. The central premise of the Make in India program was starting here. But in China, strategies aimed at the need for a more assertive public policy for more substantial socio-economic progress were being implemented.

However, while Dogra states that India's plans seek solutions in development policies from environmental problems to climate change studies, she underlines that China does not have detailed research on these issues⁴⁰². As a matter of fact, with the Make in India program, these plans have started to be specified more clearly. Some of these studies are securing water basins, Cumulative Environmental Impact Assessments (CEIAs) for sensitive areas, studies related to reducing pollution, and controlling water resources. Besides, within the scope of the Make in India program, various targets have been set in renewable energy studies. The previously announced DDUGJY portal⁴⁰³ has shown both the easy way of foreign investment and the government's transparency in this area. Another feature of China's development plan is that it has economic restructuring goals in its development plans. To make progress in various developing industries, it aims to make up 47% of the next period's GDP in production sectors with these investments in each period to provide extra support and investment to these developing industries in each new economic target.

In addition to all these, both countries' development plans contain plans and program contents on increasing the industrial and production tools, expanding infrastructure, and developing the security and defence networks. In both countries, they reduce the growing income gap between the rich and the poor and improve people's livelihoods. In this context, while China is ready to develop development programs to encourage domestic consumption⁴⁰⁴, India plans to seek solutions in these areas with FDI programs initially and then announce localization programs⁴⁰⁵. In addition to all

⁴⁰² Dogra, India and China's 12th Year Plans: A Comparison of Changing Priorities, p.7.

⁴⁰³ Deendayal Upadhyaya Gram Jyoti Yojana (www.ddugjy.gov.in)

⁴⁰⁴ Sebastian Heilmann and Oliver Melton, "The Reinvention of Development Planning in China, 1993-2012", *Modern China*, Vol:39, No:6 2013, p.581.

⁴⁰⁵ Ankita Sharma, Nithin Chakki and Malyaj Varmani, *The Case for Foreign Direct Investment in Research & Development in India*, Invest India, New Delhi, 2020, p.14.

this, China aims to achieve more remarkable growth in use by implementing improved development resources and industry plans in each new scheme⁴⁰⁶.

Today, China is the world's most populous country, while India is the world's largest democracy. The political management models of the countries direct the development policies in both countries. In India, the idea of effectively implementing the five-year economic plans as a whole and increasing the efficiency of the flagship programs may have also been compelling. On the Chinese side, the various emphasis is placed on democratic and political factors and growth under the central authority's control and the fight against corruption⁴⁰⁷.

As a result, the global economic environment is not very stable, preventing both countries from making ambitious growth targets. China's more conservative GDP target than India can be explained by the difficulty of integrating into the global economy. On the other hand, India aims to quadruple its current energy capacity within the Make in India program's scope to reach its targeted GDP values. It does not seem possible to accelerate the growth of infrastructure with renewable energy.

In this case, it seems that coal and oil imports will continue until the existing infrastructures are completed under the Make in India program. However, while China aims to increase domestic consumption and growth based solely on exports⁴⁰⁸, India aims to attract investment to the country with FDI⁴⁰⁹, expand its economy and focus on localization within the Make in India program. Increasing changes in the democratic structure of both India and China are essential for understanding the current five-year plans. Dogra interprets this situation as the demographic gap will not close soon and that the two countries are taking action⁴¹⁰. While China aims to overcome this problem with investment in technology and productivity⁴¹¹, India plans to overcome skill increase and employment in the production phase by treating it as an increasing structure with the skills industry and making development plans accordingly⁴¹². It is

⁴⁰⁶ Hu, *The Distinctive Transition of China's Five-year Plans*, p.631.

⁴⁰⁷ Kjeld Erik Brodsgaard, *China's 13th Five-Year Plan: A Draft Proposal*, *The Copenhagen Journal of Asian Studies*, Vol33, No.2, p.102.

⁴⁰⁸ Morrison, *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*, p.13.

⁴⁰⁹ Sharma, Varmani and Chakki, *The Case for Foreign Direct Investment in Research & Development in India*, p.14.

⁴¹⁰ Suvi Dogra, *India and China's 12th Year Plans: A Comparison of Changing Priorities*, p.7.

⁴¹¹ Cong Cao, "Challenges for Technological Development in China's Industry", *China Perspectives*, Open Edition Journals, 2004, p.13.

⁴¹² Shyamal Majumdar, *Workforce Development in India: Policies and Practices*, Tokyo: Asian Development Bank Institute (ADBI) Publishing, 2008, p.47.

expected that both countries will make programs and plans on the way to high-income developing countries and set targets for this purpose. These goals are indispensable for future development programs.

III.II. Regional Development Strategies of China

With a population of approximately 1.5 billion, China is the world's most crowded country today. China is one of the countries with the sharpest East-West divide in the country. While the east of the country has been the centre of production and capital since its establishment, and its west is the region where more natural resources and per capita income are lower than the east⁴¹³. As of the sixth five-year development plan, various plans and programs have been prepared to produce solutions to the increasing inequalities between these two regions; thus, western China has started to rise both in infrastructure and production and living standards.

China has followed a development policy closed to global integration in general guidelines and has been working on an industrial corridor between the east and the west. The processing of natural resources extracted from western China by eastern China and their production use constituted the production phase's primary policy. These policies have increased the inequality and imbalance between east and west over time⁴¹⁴.

The first step to overcome this imbalance was taken with Xiaoping's general strategic plan in 1988⁴¹⁵. According to this plan, east China would first develop connections with the outside world and strengthen its relations. Then, after the East's development reaches a certain level, various plans and programs have been implemented to develop central and western China. These programs' main focus was on producing the environment, developing producing resources, and eliminating transportation and infrastructure⁴¹⁶ shortcomings. Various projects came to the fore in the first phase of the plan announced for western China's development. Ling and Shiqing summarize these projects as follow: East-West gas transportation line, East-

⁴¹³ Li Zhou, "Western Development and China's Development", *Poverty Reduction and Sustainable Development in Rural China*, Beijing: Brill Press, 2011, p.54.

⁴¹⁴ Wang Sangui, Li Zhou and Ren Yanshun, *The 8-7 National Poverty Reduction Program in China-The National Strategy and Its Impact*, A Global Learning Process and Conference of Shanghai, 2004, p. 11.

⁴¹⁵ Naughton, *Ibid*, p.503.

⁴¹⁶ Dali L. Yang, *Calamity, and Reform in China: State, Rural Society and Institutional Change Since the Great Leap Famine*, Stanford: Stanford University Press, 1996, p.37.

West electricity transmission line, environmentally friendly construction, south-north water transmission road, construction of Qinghai-Tibet railway⁴¹⁷. However, Alpaslan claims that these targeted investments result from the strengthening of the structure based on the use of resources in the west in the east⁴¹⁸. These regional developments, which started in the early 2000s, continue to determine new goals in the eleventh five-year development plan in 2006. Within the framework of this plan, while the works on infrastructure works and environmental development continued, on the other hand, policies for the industrialization of the west and the development of cities were continued.

The measures are taken for China's growth from past to present caused millions of west Chinese to migrate to the east due to unemployment and the desire to take advantage of opportunities. It is stated that approximately 200 million people migrated during this period⁴¹⁹. However, the emphasis on "welfare for all" applied in the eleventh development plan and the steps taken helped the West region. In order to achieve this goal, the development policies implemented in the east in 1980 were also implemented in the west, and these practices were also aimed at ensuring the mobility of goods and workers and increasing the welfare of the immigrant population in the region by taking advantage of the economy of scale. As a result of the infrastructure investments made, three new special economic zones were established in west China⁴²⁰.

⁴¹⁷ Lin Ling and Liu Shiqing, "The Progress, Experience, and Prospects of Western Development", *Poverty Reduction and Sustainable Development in Rural China*, Beijing: Brill Press, 2011, p.12.

⁴¹⁸ Idil Bilgic Alpaslan, *Bir Bolgesel Kalkinma Hikayesi: Bati Cin (A Regional Development Story: Western China)*, Ankara: Tepav Press, 2013, p.2.

⁴¹⁹ Yukon Huang, *Reinterpreting China's Success Through the New Economic Geography*, Washington: Carnegie Endowment for International Peace Publications, 2010, p.5.

⁴²⁰ *Ibid.*

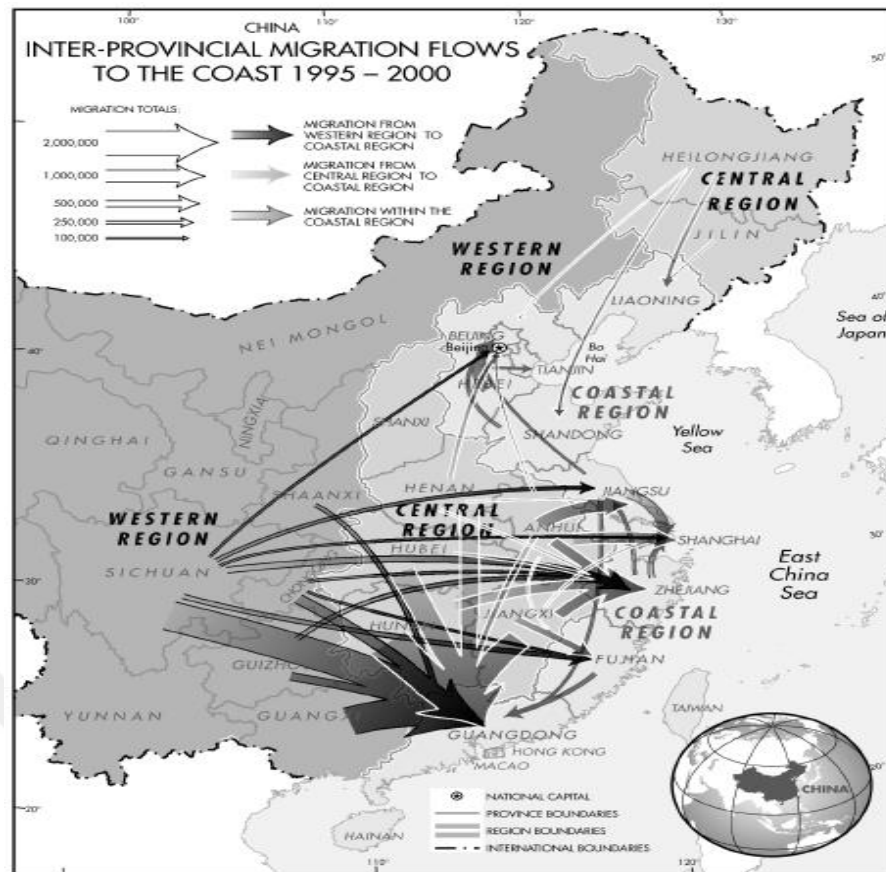


Figure 8: Carnie Paper's Inter-Migration Flows to The Coast 1995-200⁴²¹

Taking steps to move from a planned economy to a market economy, the Chinese government established four particular economic areas in the south-eastern coastline of Guangdong and Fujian provinces in 1980⁴²². In the late 1970s and especially in December 1978, at the third General Assembly of the 11th Central Committee of the Chinese Communist Party, the Chinese government initiated the reform and opening policy⁴²³. The primary purpose of establishing special economic zones was to make these regions attractive to foreign investors with various incentives, lower tariffs, better infrastructure, more flexible labour markets, and less bureaucracy.

In 1984, China further opened its 14 coastal cities to overseas investments: Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang, and Beihai⁴²⁴. Since 1988,

⁴²¹ Yukon Huang, *Reinterpreting China's Success Through the New Economic Geography*, p.9.

⁴²² Yue-man Yeung, Joanna Lee and Gordon Kee, *China's Special Economic Zones at 30*, London: Eurasian Geography and Economics, p. 224.

⁴²³ *Ibid.*

⁴²⁴ Yawei Chen, *Financializing Urban Redevelopment: Transforming Shanghai's waterfront*, Land Use Policy, 2020, p. 4.

mainland China's opening to the outside world has expanded into the border regions, areas along the Yangtze River, and interior areas. First, the state decided to make Hainan Island the largest special economic zone in China and expand its other special economic zones. By the 1990s, there were special economic zones in all states along the coastline. Various studies were conducted to strengthen the domestic and international connections of these regions. From 1992 to the present, the Chinese government has opened several border cities and has also established connecting roads from these to all capitals of the inner provinces and autonomous regions⁴²⁵.

Besides, 15 free trade zones, 32 state-level economic and technological development zones, and 53 high-tech industrial development zones have been established in large and medium-sized cities. As these open spaces adopt different preferential policies, they play an essential role in developing the outward-looking economy, creating foreign currency by exporting produced and importing advanced technologies, and accelerating domestic economic development⁴²⁶. The last of the projects to increase the regions' connectivity is the high-speed train line, which entered service in 2012, between Beijing, the capital, and Guangzhou, the south-eastern Guangdong province's capital. This high-speed train project reduces the distance of 2,298 kilometres to 8 hours and is also the longest high-speed train line globally⁴²⁷.

This importance given to the east, especially to the coastline, led to significant differences between east and west in terms of economic development. In addition to being underdeveloped compared to the east, west China was also causing severe problems with the development differences between the city and the countryside⁴²⁸. In line with the "Growth Pole Theory," which has been used for eastern China's development since the 1980s, three economic centres were determined in western China. The Pan-Beibu Bay Economic Zone in the northwest in 2008, the Guanzhong-Tianshui Economic Zone in the mid-west in 2009, and the Chengdu-Chongqing Economic Zone in the southwest in 2011 were approved by the government, with the

⁴²⁵ Douglas Zhihua Zeng, *China's Special Economic Zones and Industrial Clusters: Success and Challenges*, Lincoln Institute of Land Policy Working Paper, p. 9.

⁴²⁶ Malini L. Tantri, *Special Economic Zones in India: Policy, Performance and Prospects*, Cambridge University Press, 2016, p.49.

⁴²⁷ Jonathan Kaiman, "China Opens World's Longest High-Speed Railway Line.", *The Guardian*, December 26, 2012, (<https://www.theguardian.com/world/2012/dec/26/china-high-speed-rail-bullet-trains>) Last Accessed: 06.01.2021

⁴²⁸ Yeung, Lee and Kee, *China's Special Economic Zones* at 30, p.225.

predictions that the growth in these centres will spread over their area⁴²⁹. In this direction, various attempts were made to increase western China's ties with east China and the outside world.

In addition to the infrastructure and transportation investments initiated in the region after 2000, various attempts were made to increase the region's connection and the rest of China with the outside world. One of the most important of these initiatives is the Chongming-Duisburg train line, which made its first flight in August 2012⁴³⁰. The export, which previously took 38 days by the sea, decreased to 16 days after this line was put into use.

Also, 15 free trade zones, 32 state-level economic and technological development zones, and 53 new and high-tech industrial development zones have been established in large and medium-sized cities. As a result, it has created a diversified multilevel model that integrates coastal areas with rivers, borders, and hinterlands in China. The SEZs and OPCs available today are as follows:

Type	City	Province
Special Economic Zone – Province	—	Hainan
Special Economic Zone – City	Xiamen	Fujian
	Shantou	Guangdong
	Shenzhen	Guangdong
	Zhuhai	Guangdong
	Kashgar	Xinjiang
Open Coastal City	Shanghai	—
	Tianjin	—
	Fuzhou	Fujian
	Guangzhou	Guangdong
	Zhanjiang	Guangdong
	Beihai	Guangxi
	Qinhuangdao	Hebei
	Lianyungang	Jiangsu
	Nantong	Jiangsu
	Dalian	Liaoning
	Qingdao	Shandong
	Yantai	Shandong
	Ningbo	Zhejiang
	Wenzhou	Zhejiang

⁴²⁹ Kaiman, China Opens World's Longest High-Speed Railway Line.

⁴³⁰ *Ibid.*



Figure 9: SEZs and Economic Development Zones in China⁴³¹

As a result, while the Western China is rich in natural resources but at the same time is still lagging, the east has gained wealth prosperity due to the investments and global integration. One of the reason for this is that the natural resources extracted in the West are transported to the East and used as input in the manufacturing industry. The eastern companies carry out high value-added production⁴³². However, Eastern China has become an investment centre with its economic centres and proximity to transportation routes. However, after the regional inequalities in China reached profound dimensions, the regional development studies started in 2000 were accelerated with the 11th Development Plan.

As a result of the development policy studies initiated in 2000, 143 essential projects, mostly on infrastructure and transportation issues, have started in Western

⁴³¹ Updated from map courtesy of University of Texas Libraries

(http://www.lib.utexas.edu/maps/middle_east_and_asia/china_econ96.jpg) Last Access: 07.02.2021

⁴³² Bret Crane, Chad Albrecht, Kristopher Duffin and Conan Albrecht, *China's Special Economic Zones: An Analysis of Policy to Reduce Regional Disparities*. Regional Studies/Regional Science, 2018, p.99.

China. In the past 12 years, a sectoral transformation has been observed in Western China, and the manufacturing-oriented industrial structure has become widespread. The share of exports of medium and advanced technology products in total manufacturing industry exports has increased. The transformation experienced was also reflected in the income of the people of the region. While the per capita income in West China was 39% of the per capita income in Eastern China in 1990, this rate increased to 42% in 2008⁴³³.

As in Eastern China, three economic centres have been determined and invested in Western China. Many incentives have been given for companies to invest in the region. Programs have been implemented to create a qualified workforce, and infrastructure and transportation projects have been carried out to quickly deliver their products to the rest of China and abroad. All these projects have been carried out following the goals included in the development plans to develop West China, which is underdeveloped compared to the East, and increase the people's welfare. Although large-scale projects have been carried out, Western China is still far behind the East. However, the Chinese government gave comprehensive coverage to the subject in the 12th five-year Development Plan and announced new projects in order to correct this situation and increase welfare⁴³⁴. China's current development policies and projects continue past work and are a part of sustainable development plans from the past to the present.

III.III. China's Current Development and Innovation Programs

China, which started in the 1950s in line with the goals of the Communist Party of China and successfully achieved eight goals set within the scope of the "Millennium Development" goals in the 1990s, announced new plans and programs in the country after it started implementing its fourteenth five-year development plan. These consist of infrastructure and industrial studies and various projects and strategies developed globally to sell what is produced. In this globally innovation programs related to the studies carried out in the country from the past to the present and the programs related to technology transfer are collected under the umbrella of the "Made in China 2025"

⁴³³ *Urban Trends and Policy in China*, OECD Regional Development Working Papers, Vol. 2009/01, March 25, 2009, p.1.

⁴³⁴ Tantri, *Special Economic Zones in India: Policy, Performance and Prospects*, p.51.

innovation programs series; for global scale targets and plans, targets were determined within the Belt and Road Initiative (BRI) program. Analysing these two programs and comparing them with the program Make in India program to examine the similarities and differences between them is essential for understanding both countries' development and innovation programs.

III.III.I. Made in China 2025

The Chinese President announced the Made in China 2025 (MIC) program in May 2015 to further develop the manufacturing sector and increase investments in infrastructure works. It is aimed to be an innovation program that is an integral part of the thirteenth and fourteenth five-year development programs⁴³⁵. Under this plan, the main objective is to prevent China from being a cheap labour centre and become a centre of cheap technological goods. The main goal is to turn China's industry and production capacity into a powerhouse where high-tech products are produced in a broader sense. The most basic of these targets is to increase the content of raw materials produced domestically to 40% in 2020 and 70% in 2025⁴³⁶. In line with this goal, China plans to make the country the centre of production and technology through various sub-branches.

This plan's fundamental goal is to save the country's production phase from foreign suppliers and increase high-tech products. In line with these two purposes, complete growth and development are aimed in all industries related to technology by offering investment opportunities in other technology areas⁴³⁷. However, China, which has received a severe reaction from Europe and America since 2018 because of the elimination of the foreign supply chain in general, does not highlight the "MIC 2025" statement in the propaganda and advertising activities to keep foreign investors coming, even if the program is in effect⁴³⁸. But today still for technological indigenization and high technology in the industry. Innovation studies continue. To achieve these goals,

⁴³⁵ Melissa Cyrill, *What is Made in China 2025 and Why Has it Made the world So Nervous?* (<https://www.china-briefing.com/news/made-in-china-2025-explained/>) Last Access: 07.01.2021

⁴³⁶ James McBride and Andrew Chatzky, *Is 'Made in China 2025' a Threat to Global Trade?* May 13, 2019. (<https://www.cfr.org/backgrounder/made-china-2025-threat-global-trade>) Last Access: 07.01.2021

⁴³⁷ Feng-chao Liu, Denis Simon, Yutao Sun and Cong Cao, *China's Innovation Policies: Evolution, Institutional Structure, and Trajectory*, Research Policy, September 2011, p.922.

⁴³⁸ *What is the biggest 2019 tech trend in China?* July 16, 2019. (<https://www.reddigitalchina.com/blog/what-is-the-2019-biggest-tech-trend-in-china>) Last Access: 07.01.2021

the Chinese government invested \$ 300 billion in 2018⁴³⁹. An additional 1.4 trillion dollars is planned to be funded by the Chinese government during the pandemic, as severe economic damages have occurred in these areas⁴⁴⁰.

According to McKinsey's report in 2015, within the MIC 2025 program, the Chinese government aims to be the world leader in 10 major industries. These are:

- Information Technology; Artificial Intelligence (AI), Internet of Things (IoT), Smart Appliances,
- Robotics; AI, Machine Learning,
- Green Energy and Green Vehicles; Energy Efficiency, Electric Vehicles,
- Aerospace Equipment,
- Ocean Engineering and High-Tec Ships,
- Railway Equipment,
- Power Equipment,
- New Materials,
- Medicine and Medical Devices,
- Agriculture Machinery⁴⁴¹.

III.III.I.I. Information Technology

Information Technology (IT); refers to the virtual technologies used to store, transmit, and process data. IT is considered a subset of information and communication technology used for business operations instead of informational, personal, or entertainment technologies. An information technology system (IT system) is usually an information system, a communication system, or a computer system, including all hardware, software, and peripheral equipment operated by the user group. Today, these systems' high-tech equipment is AI, IoT, and Smart Appliances in technology's

⁴³⁹ Keith Bradsher and Paul Mozur, *China's Plan to Build Its Own High-Tech Industries Worries Western Businesses*, March 7, 2017 (https://www.nytimes.com/2017/03/07/business/china-trade-manufacturing-europe.html?_r=0) Last Access: 07.01.2021

⁴⁴⁰ Emily Crawford, *Made in China 2025: The Industrial Plan that China Doesn't Want Anyone Talking About*, May 7, 2019. (<https://www.pbs.org/wgbh/frontline/article/made-in-china-2025-the-industrial-plan-that-china-doesnt-want-anyone-talking-about>) Last Access: 07.01.2021

⁴⁴¹ McKinsey&Company, *The Internet of Things: Mapping the Value beyond the Hype Report*, Shanghai: McKinsey Global Institute, June 2015, p.4.

advancing stages. IoT refers to the control of big data via the internet and cloud accounts.

After the conference held in Barcelona in 2016, global companies stated that they would attract their investments to these channels. Providing the opportunity to develop and manage all living spaces of people from a single source, IoT constitutes the beginning stages of a system that takes all life under control with its connection with Smart Home appliances. We can cite this as an example of smart home systems from our lives. It is aimed to develop a living standard where all these IT systems will be controlled from a single source in the future. For example, the control of the refrigerator, washing machine, and all electronic devices in the home through a single system, the connection of the vehicle used to all these systems, and the control of them from a single point can be cited as examples these new technologies. Here, the system that enables all these objects to act together can be described as IoT, all these tools used as Smart Appliance and AI in the smart approach that manages the software used for this whole network.

China's central policy in this sector is to develop the technology in its hand and take the intellectual property rights of the technology that is not available. A report published in 2018 mentions a transfer of 13.6 billion dollars from Germany and 135 billion dollars from the United States for these intellectual property rights⁴⁴². It is also known that the Huawei company has developed 5G technology. Besides, Xiaomi company has come a long way regarding IoT.

The most crucial criticism of China's policies is that the Chinese authorities attach great importance to users' privacy. The article published by McBride and Chatzky on these subjects mentions that information about face recognition technologies has been leaked to the defence industry⁴⁴³.

III.III.I.II. Robotics

Robotics can be described as a discipline that includes the design, construction, operation, and use of robots. Robotics develops machines that can replace people and

⁴⁴² "Institute for Security & Development Policy", *Made in China 2025*, 2018, p.5.

(<https://isdpeu.org/content/uploads/2018/06/Made-in-China-Backgrounder.pdf>) Last Accessed: 07.01.2021

⁴⁴³ James McBride and Andrew Chatzky, *is 'Made in China 2025' a Threat to Global Trade?* May 13, 2019. (<https://www.cfr.org/backgrounder/made-china-2025-threat-global-trade>) Last Accessed: 07.01.2020

replicate human actions and innovate and develop products in this field. Robots can be used in many situations and for many purposes; however, many of them are used today, for now, in hazardous environments such as inspection of radioactive materials, bomb detection, manufacturing processes, or places where people cannot survive, like in space, underwater, clean and surround hazardous materials and radiation.

Nearly 1 million working robots have been produced in China in the last four years. 150,000 of these are industrial robots, and 6,500 companies in China's robotics industry continue their R&D work in this area. Currently, China is the largest consumer of robots in the world⁴⁴⁴. China's most prominent policy in this area is to transfer technology and purchase intellectual property rights. Indeed, the state-funded acquisition of foreign robot companies such as KUKA is an example of this⁴⁴⁵.

III.III.I.III. Green Energy and Green Vehicles

Electric vehicles powered by sustainable natural energy sources and natural energy sources, which constitute one of China's most significant investment channels today, are now the focus of new technology. Today, China is the world leader, especially in vehicle manufacturing and storage and electric vehicles' energy units. New electric cars are an essential part of China's smart cities plan. With the advances in the automation system in the future, cars that can drive themselves in cities and vehicles that do not need any power source and energy and charge themselves are among China's post-2030 goals. This industry seems to be the solution to China's worst problems, the environment, and air pollution⁴⁴⁶. It appears that this technology will show more efficiency in the production of unmanned combat vehicles in the future.

III.III.I.IV. Aerospace Equipment

Aerospace is a human effort in science, engineering, and business to fly in the earth's atmosphere and the surrounding space combined in space engineering. The aerospace

⁴⁴⁴ I-Ting Shelly Lin, *The Robotics Industry in China*, May 14, 2018 (<https://www.china-briefing.com/news/chinas-robot-industry/>) Last Access: 07.01.2021

⁴⁴⁵ *Ibid.*

⁴⁴⁶ Edward Tse, *Trade war or not, from AI to blockchain and new energy vehicles, China is on the front row for the Fourth Industrial Revolution*, October 8, 2018 (<https://www.scmp.com/comment/insight-opinion/world/article/2167192/trade-war-or-not-ai-blockchain-and-new-energy-vehicles>) Last Access: 07.01.2021

sector generally researches the airframe and spacecraft, designs, produces, takes care of. Aerospace includes many commercials, industrial and military applications⁴⁴⁷. In this respect, it must be developed and made by both private institutions and the state. The National Space Administration of China (CNSA) is China's national space agency. It is the body responsible for the federal space program and the planning and development of space activities. Chinese government: It is a subsidiary of the State Administration for Science, Technology and National Defence Industry Administration (SASTIND) and the Ministry of Industry and Information Technology (MIIT).

In the People's Republic of China, Beijing, Xi'an, Chengdu, Shanghai, Shenyang, and Nanchang are the primary research and production centres' aviation industry. China has developed a comprehensive capability to design, test, and manufacture military aircraft, missiles, and spacecraft. Despite the cancellation of the experimental Shanghai Y-10 in 1983, China is still developing its civil aviation industry⁴⁴⁸. China is expected to become the world's largest aircraft market by 2022. The main goal of the Chinese government in this area is to make this sector entirely domestic. As of 2018, the localization rate in this area is around 40%. Today, within the framework of the 2025 plans, China has a very high number of programs and initiatives that will appeal to every branch of this field⁴⁴⁹.

III.III.I.V. Ocean Engineering and High-Tec Ships

High-tech ships and marine engineering sector are one of the most essential sectors developed by the defence industry. Realizing the sea's ineffectiveness, especially during the tension with the USA, the Chinese government included this sector in this program. The program's primary goal is to provide its coastal security and reach the most advanced level in this sector. However, if we look at Zeihan's last conference speech, it seems that China will not compete with the USA on this issue for a long time⁴⁵⁰.

⁴⁴⁷ Andrew Jones, *China's Big Ambitions for Space are Riding on a December Launch*, November 29, 2019. (<https://www.space.com/china-test-long-march-5-rocket-ambitions-december-2019.html>) Last Access: 07.01.2021

⁴⁴⁸ Amanda Lee, *China's Aviation industry has a steep climb to 'Made in China 2025' goals*, October 29, 2018. (<https://www.scmp.com/business/article/2170746/chinas-aviation-industry-has-steep-climb-made-china-2025-goals>) Last Access: 07.01.2021

⁴⁴⁹ *Ibid.*

⁴⁵⁰ Peter Zeihan, "The New World (Dis)Order", 72nd CFA Institute Annual Conference, August 13, 2019 (https://www.youtube.com/watch?v=pKVQDUQR8I4&ab_channel=NathanWatson) Last Access: 07.01.2021

III.III.I.VI. Railway Equipment

The Railway Equipment sector is vital for China's Belt and Silk Road program today; The merger of locomotives and wagon factories has restructured the global rail equipment market where the global iron equipment giant dominates a more significant market share. Today, there are three mega-companies in the world in this field. These are Siemens in Germany, Alstom in France, and Bombardier in Canada. These three firms have 55 percent of the total global market share and advanced technology and more in this industry. Bombardier has the largest market share in the steel bar technology and sales market. Alstom dominates the ordinary single deck and double deck electric locomotive market. To adapt to the demand of the current railway development, the Chinese government has taken severe steps to pay large sums of money by cooperating internationally with leading international manufacturers to promote high-quality products, develop advanced production technology and upgrade the Chinese railway technology equipment.

China has been leading the world in investing in railway technology since 2016. Having one of the most comprehensive railway systems globally, high-tech trains that use magnetic buoyancy to move at almost 600 km are produced thanks to the rapidly continuing studies and newly developed technologies⁴⁵¹. China relies heavily on road trains in the One Belt One Road system. This shows that China is trying to create the trade routes it is trying to establish with this program and complete it⁴⁵².

III.III.I.VII. Power Equipment

The power equipment industry is the sum of all sectors involved in energy production and sales, including fuel extraction, refining, and energy distribution. Modern societies consume vast amounts of fuel, and the energy industry is an essential part of society's infrastructure in almost all countries. This is inevitable, especially for the world's most populous country like China. In this regard, within the scope of the "Made in China 2025" program, this area is of great importance for the continuity of production.

⁴⁵¹ Tom Metcalfe, *China's new high-speed train will 'float' over tracks to hit 370 miles an hour*, June 5, 2019.

(<https://www.nbcnews.com/mach/science/china-s-new-high-speed-train-will-float-over-tracks-ncna1014206>) Last Access: 07.01.2021

⁴⁵² Institute for Security & Development Policy.

III.III.I.VIII. New Materials

China is investing in a local superconductor manufacturer in this industry. Huawei produces 60% of China's demand in this industry, but only 13% because this is quite necessary as technology develops, faster computers, computer technology, artificial intelligence, 5G wireless, Internet of Things, etc.⁴⁵³ Superconductors will be required for each electronic component through alloys. The new raw material of these sectors also reveals the importance of this New Materials sector⁴⁵⁴. Besides, China has achieved great success in producing solar panels. In addition to all these, the new super-tech smart computer chips and 5G technology acquired by Huawei company also revealed that China had achieved profound success in producing high-tech products. The US embargo in these areas has pushed the Chinese state to indigenous, and the general opinion in this area is that China has achieved profound success in this area⁴⁵⁵.

III.III.I.IX. Medicine and Medical Devices

Medicine and Medicines Devices Policies are to increase the standards required for medical equipment and medicine itself and raise these standards to meet the industrialized countries and ensure export to these countries. Of course, this will also allow local health to improve and provide more significant health opportunities as the Chinese population ages. Other plans under this industry also include payment of foreign data in applications for drug distribution in China, global medical testing criteria, and local government-owned businesses' consolidation⁴⁵⁶.

III.III.I.X. Agriculture Machinery

Agricultural Machinery is the general name of agricultural production and processing engineering. The primary purpose of this discipline is to increase the effectiveness and sustainability of farming practices. China is a country that has always struggled to

⁴⁵³ "Technology, Media, and Telecommunications Predictions 2019", New York: Deloitte Insights Reports, 2019, p.88

⁴⁵⁴ "Is 'Made in China 2025' a Threat to Global Trade?"

⁴⁵⁵ "Trade war or not, from AI to blockchain and new energy vehicles, China is on the front row for the Fourth Industrial Revolution".

⁴⁵⁶ Institute for Development & Security Policy, *Ibid*.

nourish itself. This situation has led the peoples who have lived in this region for centuries.

The use of new technology in agriculture suggests several improvements under the "Made in China 2025" program. For example, agricultural drones, security control systems, data collection systems with continuous monitoring, and all innovation such as livestock monitoring, sowing large quantities of land, weed control, automatic and remote processing of crops, crop health and insect monitoring, soil analysis⁴⁵⁷. It has a system, including models. These innovation models' essential feature to gain functionality is directly proportional to China's development success in other fields.

III.III.II. Belt and Road Initiative

Belt and Road Initiative (BRI) is a global infrastructure development strategy adopted in 2013 to invest in nearly 70 countries and international organizations⁴⁵⁸. Considered the most global policy today, this program was included in China's constitution in 2017. The word Belt in this program is called the abbreviation of the silk road, while Road is an abbreviation of the 21st-century sea silk road⁴⁵⁹. In this respect, the project expresses all of the investments made for the security of China's trade route on the road and rail network through Central Asia and the development of this route and the policies on the Indo-Pacific sea route extending from Southeast Asia to Africa. While the Chinese government has set the 100th year goals for completing this project, it is expected that China will progress to the program on its global targets during this period.

This strategy, first announced by the Chinese President in 2013 during his visits to Indonesia and Kazakhstan, was later announced in Asia and Europe⁴⁶⁰. Afterwards, continuous notifications and promotions were made by the Chinese media until 2016⁴⁶¹. In addition, promotions and announcements related to this project were made in foreign

⁴⁵⁷ Jeremy Jensen, *Agricultural Drones: How Drones Are Revolutionizing Agriculture and How to Break into this Booming Market*, April 18, 2019. (<https://uavcoach.com/agricultural-drones/>) Last Access: 07.01.2021

⁴⁵⁸ *Belt and Road Initiative*, March 29, 2018. (<https://www.worldbank.org/en/topic/regional-integration/brief/belt-and-road-initiative>) Last Access: 08.01.2021

⁴⁵⁹ *President Xi proposes Silk Road Economic Belt*, September 07, 2013. (https://www.chinadaily.com.cn/china/2013xivisitcenterasia/2013-09/07/content_16951811.htm) Last Access: 08.01.2021

⁴⁶⁰ *Chronology pf China's Belt and Road Initiative*, June 24, 2016. (<http://en.people.cn/n3/2016/0624/c90883-9077342.html>) Last Access: 08.01.2021

⁴⁶¹ *Ibid.*

representative offices. Steps were taken to find various investment channels and international collaborators for this new project⁴⁶². The common goal among the stated goals is to create a unified large economic panel. With cultural integration, it is aimed to integrate both international and local markets into the system. In this direction, it is desired to create an innovative model by ensuring member countries' mutual trust and obtaining a capital return.

This program aims to overcome the infrastructure deficiencies and eliminate the imperfections in the new commercial infrastructure. For this reason, this strategy could also be a catalyst for economic growth in the Pacific region, Africa, and Eastern Europe. The program's first focus consists of infrastructure investments, education, the construction sector, energy infrastructure studies, and iron and steel production⁴⁶³. 'China's massive Belt and Road Initiative' report published in 2017 stated that this program covers 65% of the world's population, 40% of the world's GDP, and more than 68 countries⁴⁶⁴. This project, built on the sea and highways that once connected China to the West, refers to the silk road trade routes' broad geographical area. In addition to reflecting the global world policy of the future, China's trade routes in the past, as well as the development of the infrastructure of Asian countries, the development of diplomatic relations with the countries on this route, the reduction of dependence on the USA, and the creation of new markets for all products produced in China. It is planned to serve the targets⁴⁶⁵.

Some analysts view this project as an effort for China's political and economic hinterland. Robert interprets this project as an extended example of Mackinder's heartland theory⁴⁶⁶, while Sempa sees these projects as China's policy to dominate the global world. China's critical infrastructure investments in many South Asian countries such as Pakistan, Bangladesh, Nepal, Sri Lanka, and Afghanistan can be shown to

⁴⁶² OECD, "China's Belt and Road Initiative in the Global Trade, Investment and Finance Landscape", *OECD Business and Finance Outlook*, 2018.

⁴⁶³ Andrew Chatzky and James McBride, *China's Massive Belt and Road Initiative*, January 28, 2020. (<https://www.cfr.org/backgrounders/chinas-massive-belt-and-road-initiative>) Last Access: 08.01.2021

⁴⁶⁴ James Griffiths, *Just What is this One Belt, One Road thing anyway?* May 12, 2017. (<https://edition.cnn.com/2017/05/11/asia/china-one-belt-one-road-explainer/index.html>) Last Access: 08.01.2021

⁴⁶⁵ Prashanth Parameswaran, *Advancing Democracy in the US Free and Open Indo-Pacific Strategy*, April 24, 2019. (<https://thediplomat.com/2019/04/advancing-democracy-in-the-us-free-and-open-indo-pacific-strategy/>) Last Access: 08.01.2021

⁴⁶⁶ Francis P. Sempa, *China and the World-Island*, January 26, 2019. (<https://thediplomat.com/2019/01/china-and-the-world-island/>) Last Access: 08.01.2021

discuss these examples⁴⁶⁷. In addition to these countries, China's African policy also supports Sempa's thesis. In general, the theoretical models coming to this innovation program are interpreted within the context of the historical, economic, and social changes China has undergone from the past to the present. Simultaneously, other criticisms and comments are shown as a threat to other countries' socio-economic and cultural relations.

More than half of all current containers are routed through the seas, covering this project in today's world. In this context, China plans to develop ports on these routes, build logistics centers, and create new commercial routes. The Maritime Silk Road, which is within the scope of this project, has a route from the Chinese coast to the south, from Hanoi to Jakarta, Singapore, and Kuala Lumpur, Sri Lanka through Colombo, through the Malacca Strait, through the Maldives, the capital of the Maldives, to the southern tip of India. From there to Djibouti, East Africa to Mombasa, then to the Mediterranean via the Suez Canal via the Red Sea, from there to the Upper Adriatic region via Haifa, Istanbul and Athens, and Central Europe and the North Sea to the center of Trieste in northern Italy. There is no route of rail links. As a result, it is planned to reorganize ship connections for container transportation between Asia and Europe. The south sea route to the Trieste junction through the Suez Canal and re-plan and invest in these regions instead of the extended East Asian traffic passing through Northwest Europe.



Figure 10: China's Belt & Road Initiative⁴⁶⁸

⁴⁶⁷ Robert Daly, *China's Global Dreams Give its Neighbors Nightmares*, June 1, 2019. (<https://foreignpolicy.com/2018/03/12/chinas-global-dreams-are-giving-its-neighbors-nightmares/>) Last Access: 08.01.2021

⁴⁶⁸ <https://www.gisreportsonline.com/debate-what-chinas-new-silk-road-means-for-europe-politics,2425.html> Last Access: 07.02.2021

In this regard, China aims to establish a worldwide network of research activities with these projects. Also, it is desired to pave the way for the development of Western China. Funded and supported by financial institutions such as Asian Infrastructure and Investment Bank (AIIB) and Silk Road Fund (SRF), this project includes many economic corridors, Megaprojects, and various economic partnership agreements between countries. While Russia, Eastern and Central European countries, Gulf and Arab countries support this project; Countries such as the USA, Western Europe, and India see the project as a threat to their economic interests and territorial integrity.

III.IV. General Evaluation and Comparison of Innovation Policies

India and China are the two most populous countries in the world. Both countries' development policies and strategies contain many common ties in the process from the trajectory of development in 1947 and 1949 respectively. While India has followed a relative development policy that protects the country's integrity from 1947 to the present day, China has not been sensitive to democracy and human rights. However, China has quickly passed the development stages due to its socialist administrative structure and a centralized management structure. It has resulted in prejudices against the continuation of it until today. The programs of both countries have various pros and cons, as well as some common points.

First of all, China's most significant achievement is its continuity in its five-year development plans. Every five-year development policy implemented until today has continued in the rising trend, and development has been supported with various programs even in interruption periods. The best example to explain this situation is the New Long Progress program announced by Xiaoping due to the fifth five-year development plan's disruption. It is a well-known fact that within the socialist government structure the human rights do not carry much importance in China. As an example of it while China economically growing the atrocity of them show itself in regions such as Uyghur and Tibet.

Another critical achievement of China in this process is that all the programs and studies implemented, especially recently, are on a global scale. Both the BRI's inclusion of the whole worldwide economy and the MIC 2025 program's joint

international programs with BRI and regional development are examples of this. Besides, the fact that China focuses entirely on high-tech products in these development programs shows the long-term program capacity in the innovation programs it implements. With the thirteenth and fourteenth development plans, China's development policy's main goal was not only to develop its regions but to create new markets for itself on a global scale. China is aware that the continuity of all the products it produces in the future is an indispensable part of the country's development. In this case, the main goal of China, especially with BRI, is to ensure the portability and safety of the products it produces by making various investments in the routes specified in BRI for the sale and continuity of the products that are maintained in production within the scope of MIC 2025. Within these programs' content, both the country's infrastructure and the infrastructure works carried out on the BRI routes are the essential part of China's development policies. The view that these parts' security will constitute the Chinese mainland's security is still being discussed by both land domination theorists and maritime theorists on a theoretical basis.

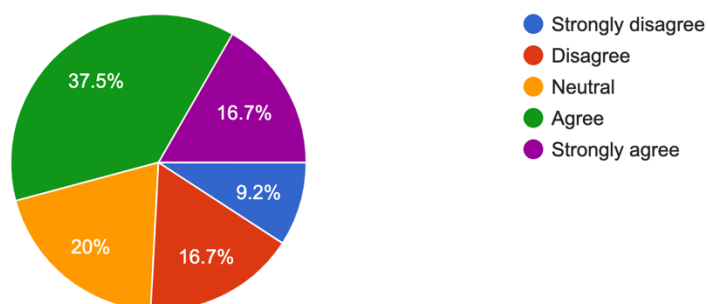
In addition to all these plus inputs, China's 9,000-year-old culture's experience and know-how enable the country to take firm steps in its general development policies. Every innovation program created after the 2000s refers to this situation. Investing in the production of high-tech products and R&D, determined by China's long-term development policies, can be described as proof of how far-sighted China has set a development policy. However, the violations of human rights and the lack of respect for other countries' sovereign rights, China's viewed as a threat, are seen as threats to development programs.

These innovation programs, which China evaluated within the scope of its vision of the future, received a reaction from many countries, especially America, Western Europe, and India. China, which does not respect other countries' rights and territorial integrity, especially its structure that does not have a social state understanding and irreconcilable attitude when there is disagreement in bilateral relations are some of the factors that block investments. In particular, during this pandemic process, China's claim to its rightful owner in ports due to the economic damage of Sri Lanka, when some African countries that borrowed from China announced that they could not pay their debts, China seized some ports and businesses

in these countries and the situation of expansionist discourses in these regions⁴⁶⁹. However, the responses of the participants regarding border conflicts and boycotts in the survey are as follows;

Border conflicts with China are damaging the Indian economy.

120 responses

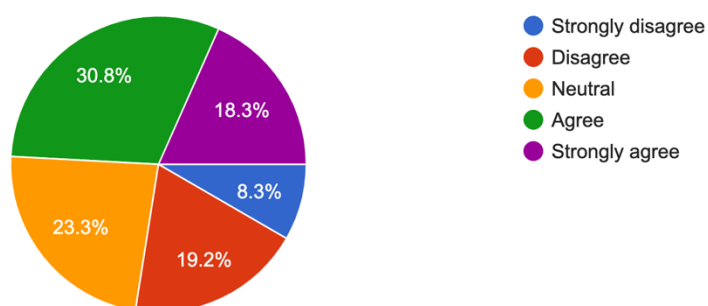


Graph: Question-18 in the Questionnaire

In this case, participants generally agree that this situation is damaging the Indian economy. In addition, the results of the data related to the boycotts resulting from this crisis are as follows;

Boycotts on Chinese products have a negative impact on India's economic investments from China.

120 responses



Graph: Question-19 in the Questionnaire

The answers to the 18th and 19th questions were almost the same in the survey in which 120 people participated. This agrees that the participants have similar

⁴⁶⁹<https://www.economist.com/china/2020/06/04/the-pandemic-is-hurting-chinas-belt-and-road-initiative> (Last Access: 09.01.2021)

consensus on the links on both issues and that there is generally a common consensus on the problems with China.

China is governed by a form of government that is far from democracy, the lack of transparency within the country and a state policy away from the social state is another reason why other countries globally distance themselves from them and take a stand against China. Following a closed approach is also considered a threat to investors from abroad. In addition to all these, the interruption of business and the loss of the companies and states that invested in the state due to the state levels' corruption can be described as factors that undermine China's trust in the future.

This introversion and lack of transparency was the main reason why the pandemic process spread so rapidly to the world. The Chinese government's long-term concealment of developments in the early stages of the pandemic has resulted in so many deaths and cases in the world today. Still, the damage of the pandemic process to the world market cannot be predicted. In the long term, it does not seem possible to converge with China in the economic policies that the states will follow in the future. Many states and companies have already started to search for alternative plans that will shift their production sectors to other states in the long run. This situation seems to seriously harm these two innovation programs in China in the future. At the end of 2020, China announced that it was seeking 350 million dollars from the ports it has invested in Sri Lanka alone. It is among the possibilities that the damages it has done and will do on the BRI route in the future will be reflected in these programs and that the plans may even collapse rather than stop the progress.

The last thing that should not be forgotten about China is the distrust in Chinese products. China became the world's production center, mostly due to the industrialization programs in the 1980s. The cheap labour force and the availability of raw materials lead many countries around the globe to open factories and production in China. had pushed to do it. Parallel to this factorization, a large market had begun to form upon the imitation of patented products in China. This situation best summarizes the current status of Xiaomi and Huawei companies today. The idea that these two companies resulted from innovations made by people who used to manufacture fake smartphones is discussed today in all internet forums.

The point reached by these illegal studies by imitating the counterfeit of technological products released by companies such as Apple and Samsung, as a result of innovation, has now resulted in the establishment of these two giant companies. Even

the vaccines produced by China during the pandemic process are considered low quality and inflowing. Most of these situations indicate that the confidence in Chinese products is still negative. It supports that if China fails to overcome this prejudice, it will have problems in the sales and marketing of every product it produces in the future.

On the other hand, India announced the Make in India program with the establishment of NITI Aayog due to a relative economic development until 2013, with five-year development plans and various financial programs, and the Ministry's duties of development to it. This program, which paves the way for all the infrastructure works, incentives, and investment channels required for the overall development of the country and the smooth functioning of the industrial sector, is an entirely transparent, substitutable, and mutual understanding model, contrary to China's closeness. In this respect, it has severe advantages for investment. Developing highly transparent and solution-based dialogues from the program's announcement to its functionality at every level, India is in a superior position in this respect than all the programs and studies produced by China. Indicating that even in the promotion of the program, all countries and large-scale companies are invited to the country, and they are ready for investment and cooperation by explaining the opportunities, the transparent and supportive attitudes of the central government, and the coordinated support of the local governments from the establishment of the program are a serious has allowed it to grow. In this regard, India acts not as customers for investment but as partners for investment.

India is described as the world's largest democratic country today. Using the advantages of being a democratic country to the full, India has become a center of investment attraction. Efficient FDI policies implemented and securing companies' rights to investment with laws increase this program's reliability. Besides, contrary to China's development policies, India's plans are far from an expansionist approach. It provides the trust of the state and private companies who want to invest in this program globally. In addition to all these, Make in India program's transparency and renewability is a tremendous advantage for India's development. If an implemented program or plan was inefficient, the Make in India program, which allows a rapid new structuring and quick transition to a new program, had a dire plus in terms of renewability and functionality in this respect. Recent improvements in education and flexibility in the pandemic process are the most outstanding examples of this situation.

There are several features of the Make in India program that lags behind China's development programs. First of all, it is critical for the processor and the development

programs' strict follow-up. The central socialist management approach is applied in China. Although the lack of importance given to human rights reduces the country's viability, it seriously reduces the negativities in the government's development policies' functioning. In the Make in India program, although the laws have become attractive to investors, they are still insufficient to keep up with the digital age. Understanding the paper and wet signature for each official transaction seems to be the biggest obstacle in developing development policies' rapid functioning. However, improvement studies regarding this situation continue.

Second, while all of China's current development programs are on a global scale, the Make in India program's general environment is based on India's security and development. In contrast, China designs its considering account real-world politics, market situation, possible crisis, etc. While developing development policies, India acts only with a program understanding that ensures its integrity and security. As a result of this situation, while China acts as a decision-making authority in every step it takes, India follows a policy or road map according to that time's conjuncture. In this case, it causes China's development policies to react faster in possible danger, and India is searching for a solution according to the world conjuncture in crises. This was the case in the past. Of course, the requirements of being a democratic country may have pushed India to follow such a path. However, it is possible to reach such examples even when comparing the past five-year development policies.

Finally, China's relatively higher number of educated workers than India, increasing its investment in high-tech products in the industrial sector, creates a substantial positive effect for China. While promoting India's Make in India program, its main advertisement was to find cheap and qualified workers and all investment fields to be a virgin. This situation resulted in all incoming investments investing in drudgery production instead of high technology product production. China is now in a position almost to turn down such investments. But on the other hand, India, an educational that accepts all kinds of production regardless of its content. Besides, the work required to train qualified personnel does not meet the needs of India today. Although studies have been initiated regarding this deficiency, it can be concluded that China is behind its development programs. The most transparent policy of the Indian government in this regard under the Make in India program is to ultimately end the external dependency of industries and try to create an economy that is not quickly affected by crises. The

pandemic period was a successful period for testing these policies, and it can be said that India has been very successful in this regard.



Chapter-4
Outcomes and Recommendations for Make in India Initiative

IV. Outcomes and Recommendations for Make in India Initiative

IV.I. Current Sustainable Development Theories and Evaluation of Make in India within the scope of these Theories

The concept of development is mentioned as a branch of science that explains the qualitative and quantitative aspects of underdeveloped regions in terms of structure. The concept of sustainable development, on the other hand, expresses the continuity of this structural structure in a way that can sustain growth under any effect⁴⁷⁰. Today, sustainable development theories and approaches are formed to include geographical and cultural construction and the impacts of development at a regional level. The general reason for following such a path is related to both the development differences between the country's regions and the undeniable effect of development regionalism on the country's general development policies⁴⁷¹. According to the OECD, regional development policies are seen as an effort to reduce regional disparities by supporting economic activities that create employment and welfare in the region⁴⁷². Given this structure of the OECD, Robert states that a successful regional sustainable development policy should include the following elements:

- Developing a strategic vision for the region,
- Reflecting national priorities and local demands
- Being able to cope with changing conditions
- Benefiting from the opinions of local participants during the regional plan preparation and implementation process
- Including a mechanism that will allow regular observation and re-observation⁴⁷³.

⁴⁷⁰ David Griggs, Mark Stafford, Johan Rockstrom, Marcus Ohman and Owen Gaffney, *An integrated framework for sustainable development goals*, Stockholm: Ecology and Society, Vol.19, No.4, 2014, p.48

⁴⁷¹ *Ibid.*

⁴⁷² OECD, *Regional Outlook 2019: Leveraging Megatrends for Cities and Rural Areas*, Directorate for Public Governance, p. 8.

⁴⁷³ Peter Roberts, *Regional Planning Guidance in England and Wales: Back to the Future?* Liverpool: Liverpool University Press, Bol67, No.1, 1996, p.101

The most crucial feature from the announcement of the Make in India initiative program to the present day is that every step taken was done in consultation with experts and development policies were left to NITI Aayog. In this context, when the Make in India initiative program was first announced, the main slogan was that 'the state is not looking for investors, but the state is looking for partners'⁴⁷⁴. The Make in India Initiative program, announced under these circumstances, has consistent features with Roberts' arguments.

When the Make in India Initiative program was first announced, the main goal was to increase the country's development and increase the quality and technology of production by using its complementary qualities in the 25 sectors identified. In this way, progress was made in production, and a solution was produced for unemployment in the country⁴⁷⁵. As a matter of fact, the 27 announced sectors and the industries' regionals and the infrastructure works prove this synchronized movement. For example, the proximity of the automobile industry and automobile parts sectors to each other and the preference of factories in large areas of the hinterland, as well as the fact that the aviation sector has joint programs with the Smart Cities project and the Doubling of Networks of Roads mission implemented for the transportation networks of large cities⁴⁷⁶.

However, each product and infrastructure services produced' interdependence and scope show to what extent the content and continuity of the Make in India program's regional planning areas calculated. The projects developed under the Make in India program have many strategic aspects for the region. Each program's primary mission under the Make in India program affects reducing unemployment in that region, improving the infrastructure and bringing the region into the economy⁴⁷⁷. As a matter of fact, the agricultural sector's incentive policies, all Skill Development programs announced within the textile sector and the mission of NITI Aayog contain a structure that can be developed for the regions⁴⁷⁸.

⁴⁷⁴ Meraj Banu, *Make in India- Problems & Prospects*, Hyderabad: International Journal of Research and Technology, Vol.8, No.3, 2016, p.970

⁴⁷⁵ *Ibid.*

⁴⁷⁶ Pranav Suresh and Suresh Ramachandran, Development of Smart Cities in India- Dream to Reality, Scholedge International Journal of Business Policy & Governance (SIJBPG), Vol.3, No.6., 2016, p.75.

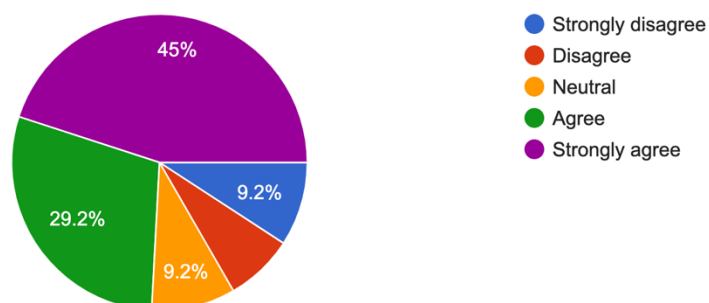
⁴⁷⁷ <https://www.makeinindia.com/article/-/v/make-in-india-reason-vision-for-the-initiative> (Last Access: 26.01.2021)

⁴⁷⁸ <https://niti.gov.in/verticals/agriculture/achievements-year-2019-20> (Last Access: 26.01.2021)

When the Make in India program was announced, one of its main goals was to have programs that meet national priorities and local demands. Incentives within the scope of FDI for sectors to meet local needs with local resources, especially with investments and innovation programs in the defence industry, are of great importance in reflecting the national priorities and local demands of the Make in India program. Another element that can be used in the Make in India program's content is that it can cope with changing conditions. The rapid implementation of new incentives and programs with existing programs, especially in sectors where progress cannot be made, summarizes this situation. The addition of existing industrial corridors to Bharatmala Pariyojana Visionary corridors, the innovation policies announced for agriculture, the Defence Acquisition Procedure 2020 in the defence sectors and especially the new education and health policies during the Covid-19 pandemic show the resistance of the Make in India program in the conditions not mentioned. As a matter of fact, the answers to the questionnaire about the impact of Covid19 on the Indian economy are as follows;

The recent COVID 19 crisis has negatively affected the Indian economy.

120 responses

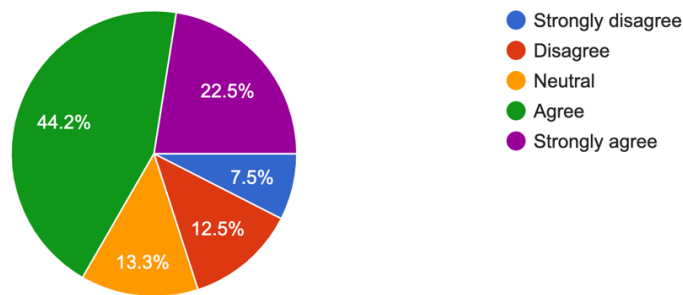


Graph: Question-14 in the Questionnaire

45% of respondents strongly agree that Covid19 is harming the Indian economy, while 29.2% agree. In addition, 9.2% is neutral. However, the rate of those who disagree with this view is 7.5% and the rate of those who completely disagree it is 9.2%. In this case, the vast majority of participants are of the opinion that Covid19 has a negative impact on the Indian economy.

In the question that opportunities will arise for the Indian economy in the post-Covid19 period, the answers are as follows;

The period after COVID-19 will have more effective economic effects on India.
120 responses



Graph: Question-15 in the Questionnaire

The answers given about opportunities after Covid19 are 22.5% very positive, 44.2% positive, 13.3% undecided, 12.5% negative and 7.5% completely negative. In this case, the opinion that there would be possible opportunities is predominant.

In addition to all this, India has acted in partnership with the states from the Make in India program's planning to its announcement and implementation. Joint studies have been carried out with conditions and representatives of other countries, universities, and companies, and within this scope, a structure that allows regular observations and regulations has been developed. Many countries in the world announce and maintain regional sustainable development policies with an innovation model. In general, these programs have a structure that can both respond to regional needs and eliminate the negativities in the country's development. For example, in the context of both maritime and land domination theories, Made in China 2025 and the One Belt, One Road initiative projects are implementing long-term sustainable development policies to eliminate regional backwardness and make China the economy production center of the world⁴⁷⁹. Investment in the defense industry in the same way in implementing the Ukraine and incentive programs, Turkey evaluates various programs and regional partnerships for innovation given by assessing the advantages and disadvantages of geography⁴⁸⁰. Likewise, it deals with regional industrialization

⁴⁷⁹ Swerts, Pumain and Denius, *The Future of India's Urbanization*, p. 51.

⁴⁸⁰ Maryna Vorotnyuk, *Foreign Policy Audit: Ukraine- Turkey*, Institute of World Policy Discussion Paper, 2016, p. 23 (http://prismua.org/wp-content/uploads/2016/04/Aud_Ukr_Turk_01_32_eng-2.pdf)
Last Access: 26.01.2021

programs in Brazil⁴⁸¹. In short, each developing country blends its regional development program or plans with the values of both its cultural and geographical location and sets out unique programs and missions. India, on the other hand, applies the Make in India program, to focus on indigenouslyness in sectors where the country is dependent on foreign countries; regional and national infrastructure works to eliminate inequality between the regions and to evaluate the country economically with domestic and national resources and leave an entirely free country⁴⁸². Within the scope of these goals, the Make in India program meets its technical needs, and sustainable development programs are planned.

However, Akpınar, Tasci, and Özsan state that the regional development planning implemented in a developing country is generally due to the following needs:

- Development for regions with rich resources and potential,
- Programs for metropolitan regions,
- Closing or reducing the gap between underdeveloped and developed regions,
- Special development programs to be prepared for regions with particular characteristics⁴⁸³.

As mentioned above, all these technical arguments were used in the statements mentioned above with the data obtained from all workshops and research reports, and the sustainable infrastructure of the Make in India program was strengthened. This theoretical structure's main objective is to ensure the regional coverage of the Make in India program and its adaptation to the world economy on a global scale.

In addition to all these, determining the Make in India program's scope is essential in terms of getting rid of the possible impact of creative destruction and the transparency and applicability of possible new programs and policies to be applied to the Make in India program in the future.

⁴⁸¹ Jutta Gutberlet, *The Impacts of Industrial Development in Brazil*, Regional Sustainable Development Review, (<https://www.eolss.net/Sample-Chapters/C16/E1-58-07.pdf>) Last Access: 26.01.2021

⁴⁸² Banu, *Make in India- Problems & Prospects*, Hyderabad: International Journal of Research and Technology, p. 970.

⁴⁸³ Akpınar, Tasci and Özsan, *Teoride ve Uygulamada Bölgesel Kalkınma Politikaları (Regional Development Policies in Theory and Practice)*, p.11.

IV.II. The Comprehensiveness of the Make in India Initiative

Announced by the Prime Minister Modi in 2014, the Make in India program expressed the overall objectives and investments to provide various facilities for trade in India and the development of multiple sectors. Increasing the infrastructure works for the development and improvement of the 27 sectors determined in this context, FDI, IPR and the continuity of the sectors within the country constituted the main objectives of the Make in India program⁴⁸⁴. These goals were a festive invitation to potential investors around the world. In this respect, program Make in India represents all processes and policies established for India's economic development. The main slogan of this whole process was "Minimum Government, Maximum Governance".

Gauba, Nandita and Dhingra summarized the main objectives of the Make in India program as follows:

- Making India a global manufacturing hub,
- To promote Domestic Companies and Multinationals to manufacture their products in India,
- Creating jobs for millions in India,
- Attract foreign investments⁴⁸⁵.

In line with these goals, this program has determined 27 sectors as a focal point, and together with these sectors, the country's GDP growth and tax revenues are aimed to increase. Besides, achieving high-quality standards in production and development is envisaged, and it is desired to pave the way for technological advances. It can be concluded that the program has generally met all the requirements since its announcement. Additional promotions and additions are already added to the program's content where the program's scope is insufficient. As a matter of fact, new programs and innovation studies in the farming sector constitute the most essential feature of them.

⁴⁸⁴ Bharata Bhusan Sahoo, "Make in India: Impact in Indian Economy", *International Journal of Research Culture Society*, Vol.2, Issue 3, 2014, p.485.

⁴⁸⁵ Ritika Gauba, Nandita and Ravi Dhingra, "Make in India- An Initiative to Change the Economic Landscape of the Country", *Amity Journal of Economics*, Vol. 1/2, 2018, p.90

Gaubha, Nandita and Dhingra state that the biggest obstacle to the targets is the inadequacy of the energy sector and the insufficient infrastructure works. To solve these fundamental problems, the authorities prefer high technology transfer within PPP and FDI⁴⁸⁶. The economic development policies followed by India's states have a significant role in the globalization and liberalization of the Indian economy. While states in India are quite different in terms of population or administration, they operate in similar policies⁴⁸⁷. Thus, it can be concluded that states have equal opportunities for growth and prosperity. Although most state economies are based mainly on agriculture, the recent expansion of the service sector and the resulting strong economic growth in the states are considered to be significant progress in real terms. While the service sector contributes to enormous employment creation in most of the states, the industrial sector has developed in only a few states⁴⁸⁸. This situation resulted in the formation of geographical factors and industrial corridors monitored as a result of these factors. In this case, it is evident that the states' role in India's overall sustainable development and growth has overcome various problems in this phase where the Make in India program produces solutions to structural issues on the Indian economy. In this respect, supply-side constraints in the economy, increasing the labour force's qualifications, increasing the effect of competition in manufacturing and financial support provided to companies can be considered the determining factors of equality in the development of the Make in India program on a regional scale⁴⁸⁹. The diversification of government policies in these sectors can be described as an indicator of their inclusiveness to all regions.

As part of a field study made in 2016 to calculate the regional impacts of the Make in India program and determine the progress, it was observed that the Make in India program has progressed in small and medium-sized markers between the regions and industrial corridors. In this study, where it was stated that especially the energy consumption of the provinces increased on a periodic scale, it was concluded that the investments of the industrial regions whose infrastructure work was completed changed as a result of geographical factors and scales, and the hinterland of the regions was the most significant determining factor in regional development⁴⁹⁰. However, according to

⁴⁸⁶ *Ibid.*

⁴⁸⁷ Anand Sagar, "Make in India- An Analytical Review", *International Journal of Management and Applied Science*, Vol2, Issue 6, June 2016.p. 136

⁴⁸⁸ Rajesh M. Shettar, "Impact of Make in India Campaign: A Global Perspective", *Journal of Research in Business and Management*, Vol.5, Issue 2, 2017, p. 6.

⁴⁸⁹ Sagar, Make in India- An Analytical Review, p.136.

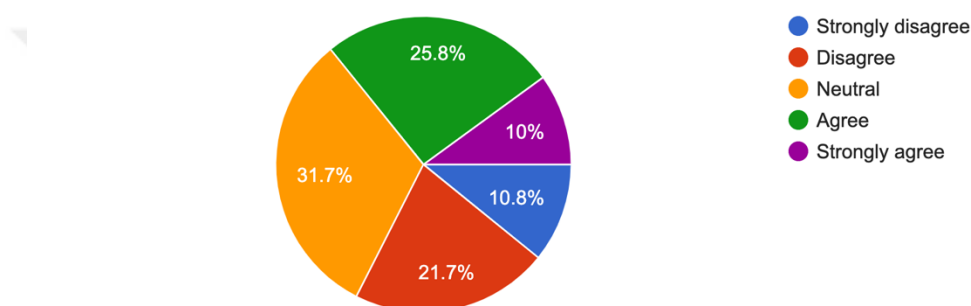
⁴⁹⁰ *Exploring Prospects for Make in India and Made in India- A Study*,

the 2020 report, in which a five-year scale evaluation was made on macroeconomic scales, it was stated that the investments made in the service sector and the agriculture sector were insufficient in the needs of the investments made in the industrial sector, and it was underlined that the agricultural reforms in regions with regional progress should be increased⁴⁹¹.

The answers given to the questionnaire asking the coverage of the Make in India program are as follows;

The policies under the 'Make in India' program are inclusive of the whole country.

120 responses



Graph: Question-12 in the Questionnaire

While 10% of the answers given by the participants strongly agree to this question, 25.8% agree. However, 31.7% is neutral, 21.7% disagree and 10.8% completely reject them. As I can see, the answers are obvious. In this case, it does not seem possible to reach a specific orientation on the inclusion of the Make in India program for the whole country.

However, in the questionnaire question in which the egalitarian effect of Make in India program on all institutions was tested, the results are as follows;

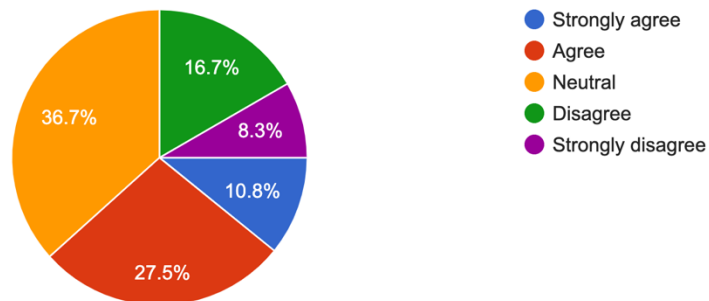
(<https://www.phdcci.in/wp-content/uploads/2018/11/Exploring-Prospects-for-Make-in-India-and-Made-in-India-A-Study.pdf>) Last Access: 19.01.2021

⁴⁹¹ Rumki Majumdar, *"India- The year that was and will be"*

(<https://www2.deloitte.com/xs/en/insights/economy/asia-pacific/india-economic-outlook.html>) Last Access: 19.01.2021

Policies under the 'Make in India' program are an egalitarian program for all companies, individuals, and institutions.

120 responses



Graph: Question-13 in the Questionnaire

According to the results, 10.8% strongly agree and 27.5% agree with this view. Also 36.7% neutral and 16.7% disagree. In addition, the number of those who completely disagree is 8.3%. The answers to this question, like the results in the previous question, are very obvious. In this case, there is no general consensus among the participants between the answers given to these two questions.

Nowadays, development policies that will be evaluated on a regional scale have been adopted for the Make in India program rather than the policies generally applied. The planning and activation of the infrastructures needed in a regional nature, the establishment of regional activity areas, the trial and implementation of innovative models for the development and self-sufficiency of these fields of activity show that the Make in India program has shifted from centralism to regionalism⁴⁹². These regional qualities and privileges will both result in the development of that region in the next period and will result in more ownership of the stated targets. As a matter of fact, the government made a great reference to regionalism in all newly launched start-up projects. Campaigns continue to ensure that all regional start-ups become unicorns in the future⁴⁹³. In this case, the Make in India program has a structure that responds to all needs, even if it does not have the same effect in every region, it brings the regional development to the maximum benefit with local benefit levels, and the cultural factors

⁴⁹² Monika Chaudhary, P.R. Sodani and Shankar Das, "Effect of Covid-19 on Economy in India: Some Reflections for Policy and Programme", *Journal of Health Management*, Vol.22, Issue 2, 2020, p. 173

⁴⁹³ Nishant Ravindra Ghuge, "A study of Impact of Make in India Campaign on the Indian Economy", *SSRG International Journal*, Vol.7, Issue 2, February 2020, p.94

work / function in harmony with all start-ups on a regional basis. It can be concluded that it has been found.

IV.III. Possible Hazards of “Creative Destruction” to Make in India Initiative

The discussion of entrepreneurship and entrepreneurship in the economic literature refers to a wide period extending from the 1930s to the present. Although the ideas of schools and thinkers who have contributed to many fields related to economics have made various contributions in this field, the general conclusion I have reached as a result of my literature review was that there was not much work done in this field after World War II. Basilgan interprets this as that neoclassical economics excludes the entrepreneur from the economic model and is merely a passive calculator⁴⁹⁴. Although this argument has some truth, the main reason for this can be interpreted as the post-war destruction and financial distress, as states abandoned neoclassical theories and switched to more statist models for restructuring.

As a matter of fact, the policies implemented in the Second Five-Year Plan in India basically summarize this situation. As a result of the second five-year development plan put into practice in 1956, a new industrialization policy was implemented as well as agricultural development, and the main goal of the state's development policy was to ensure the formation of a socialist society model⁴⁹⁵. The main reason for this was that the post-war economic environment was not suitable for entrepreneurship. As a result, statist policies were applied to encourage production, and it was aimed to contribute to the planning of the people by establishing cooperatives in rural areas. Therefore, although this static framework is interpreted on the inefficiency of entrepreneurship, which is a dynamic element, I analyse the gaps in the literature on creative destruction and entrepreneurship as the countries abandoning more neoclassical economic policies and following more statist policies in order to remove the financial debris in the post-war period.

⁴⁹⁴ Muslum Basilgan, *Ekonomik Gelismenin Yaratici Yikimi: Schumpeterian Girisimci (The Creative Destruction of Economic Development: The Schumpeterian Entrepreneur)*, Amme Idaresi Press, Vol.44, No.4, September 2011, Bursa, p.28.

⁴⁹⁵ Edwin R. Dean, *Implementing India's Second Five Year Plan*, Far Eastern Survey, Vol.25, No.12, p.188.

The research and problem argument here is that growth and technological change when countries achieve rapid economic growth will bring creative destruction, in Schumpeter's words. Acemoglu states that in such cases, new sectors on an economy will attract resources from the old ones, and as a result, the old will be replaced by the new one⁴⁹⁶. Stating that new technologies will render existing skills and machines useless, Acemoglu noted that economic growth processes would have losers as well as winners in the market⁴⁹⁷. This will form the basis for the rapid change of economic power in the market and, as a result, possible opposition to the state or inclusive financial and political institutions.

Basically, the Schumpeterian creative destruction concept refers to the situation of turning the market balance into a new equilibrium with a new technology⁴⁹⁸. In this context, Schumpeter interprets innovation as the production methods to be performed in the past and stated that the old, inefficient companies that do not follow technology would withdraw from the market and bring creative destruction during creative destruction⁴⁹⁹. On the other hand, the creation process indicates the stages in which new, productive and technological developments, more precisely innovation, companies that enable them to be included in the market emerge and economic growth is achieved⁵⁰⁰. At this point, it is of great importance to determine the sectors and areas where the Make in India initiative program has caused creative destruction and to minimize the damage of the destruction in the current order in order to investigate and refine the Make in India Initiative program and develop a more potent innovation model.

Schumpeter has gathered the concept of innovation, which he puts as the basis of economic development, under five headings in his book *The Theory of Economic Development*:

- Promotion of a new product to be released on the market,

⁴⁹⁶ Daren Acemoglu and James A. Robinson *Why Nationals Fail: The Origins of Power, Prosperity and Poverty*, New York: Crown Business, 2013, p.98.

⁴⁹⁷ Ibid, p.99.

⁴⁹⁸ Kishor Thanawala, "Schumpeter's 'Theory of Economic Development' and Development Economics", *Review of Social Economy*, Vol.52, No.4, 1994, p.355.

⁴⁹⁹ Joseph Alois Schumpeter, *The Theory of Economic Development: with a New Introduction by Jong Elliot*, Cambridge: Harvard University Press, 2012, p.28.

⁵⁰⁰ John E. Elliot, *Schumpeter and the Theory of Capitalist Economic Development*, Los Angeles: Journal of Economic Behavior & Organization, Vol.4, No.4, p.301.

- Introduction of a new production method, opening a new market where a particular sector of countries has not been entered before,
- Using a new resource to supply raw materials or semi-finished products, regardless of whether the resource currently exists or needs to be created,
- Running a new organization or breaking the monopoly position as created by the monopoly position in any sector⁵⁰¹.

In this context, examining the work done in these areas to reduce the possible destruction and dangers in front of the Make in India Initiative program and the arrangements to be made to the current program are of great importance in terms of minimizing the possible damages during this demolition period and increasing the productivity of the existing Make in India Initiative program.

Schumpeter explains economic growth through the circular flow⁵⁰². The traditional circular flow (static equilibrium) changes with the entrepreneur's incorporation of innovation into the financial system and turns into a dynamic economic development process. According to the circular flow, the entrepreneur's innovative activity creates a new equilibrium state by causing deterioration in the current equilibrium state. The transition of the economic system to a unique equilibrium point occurs with small quantitative changes.

Today, under the Make in India Initiative program, there are incentive projects related to innovation projects in 27 sectors. These innovation programs' main goal is to increase current production, reduce unemployment, decrease foreign dependency with innovation, and make India a production hub⁵⁰³. Today, the concept of creative destruction refers to a technological movement that completely destroys the world's current order⁵⁰⁴. But it should not be forgotten that the impact of these innovations on reducing unemployment is undeniable. Creative destruction in economic doctrine results in the complete destruction of the existing order⁵⁰⁵. But the scope of the Make

⁵⁰¹ Schumpeter, *The Theory of Economic Development: with a New Introduction by Jong Elliot*, p.66

⁵⁰² Ozlem Fikirli and Ahmet Kibar Cetin, "İktisadi Doktrinde Schumpeterian Yaratıcı Yıkımdan Yaratıcı Birikime (In Economic Doctrine, Schumpeterian 's Creator from Destruction to Creative Accumulation)", *Journal of Entrepreneurship and Innovation Management*, Vol6, No.1, June 2017. P.32

⁵⁰³ Vinay Kumar, "Make in India- A Success or A Failure", *International Journal for Innovative Research in Multidisciplinary Field*, Vol.2, No.9, September 2016, p.314.

⁵⁰⁴ Karol Sledzik, "Schumpeter's View on Innovation and Entrepreneurship", *Management Trends in Theory and Practice*, Ed. Stefan Hitmar, 2013, p. 91.

⁵⁰⁵ Schumpeter, *The Theory of Economic Development: with a New Introduction by Jong Elliot*, p. 68.

in India Initiative program is essentially mitigating the creative destruction. Ayush Gupta mentions that the Make in India does not disrupt the current order in, but on the contrary, this effect is impaired. Stating that the existence of a sector or phenomenon must be disrupted for creative destruction, Gupta noted that India's economic dynamics have not yet fully settled, and the main issue is to develop unemployment and the economy in a horizontal context. However, this situation does not apply to sectors with high labour force and technological breakthroughs.

Today, programs for product development and production with high technology are implemented in the world's automotive sector. In contrast, this situation increases the need for engineers and high technology, the case where the existing production systems prevail entirely over the robotic system results in unemployment. As a matter of fact, in a working report edited by Rakhi Sehgal, it is underlined that the existing contract workers in the automobile sector may become unemployed as a result of technological advances⁵⁰⁶.

However, technological advances in the textile industry also bring creative destruction under the Make in India Initiative program. The textile industry has a structure with classical production tools in India. The textile industry is the second largest business line after agriculture. The textile sector, which has approximately 33 million workers and 54 million indirect workers, has been the sector that has made the most progress in recent years under the Make in India Initiative program⁵⁰⁷. According to the figures included in the 2020-2021 budget, it is planned to invest 193 million dollars in technological investments in these sectors⁵⁰⁸. In the current situation, severe unemployment had already occurred in this sector due to the past's creative destruction. Especially in 2008 and after, more than 400 thousand unemployment occurred in Punjab, which is the centre of the sector, Gujarat and Tamil Nadu, which is the centre of ready-to-wear⁵⁰⁹. Although there are incentives to reduce unemployment in this new budget, the country's technological equipment can bring creative destruction for the working class, mostly focused on old technology.

⁵⁰⁶ Rakhi Sehgal and Aayush Rathi, *The Future Work in India's Automotive Sector in India: Perspectives from the Ground*, Working Report, The Centre for Internet & Society, February 2019, p.14. (<https://cis-india.org/internet-governance/pdf-automotive-case-study>) Last Access: 24.01.2021)

⁵⁰⁷ Ibef, *Indian Textiles Industry: An Overview*, (<https://www.ibef.org/pages/35631>) Last Access: 24.01.2021

⁵⁰⁸ *Union Budget 2021-2021*, (<https://www.indiabudget.gov.in/keytoBudDoc.php>) Last Access: 24.01.2021

⁵⁰⁹ Ibef, *Indian Textiles Industry: An Overview*

The greatest danger to creative destruction is in the agriculture sector, where unemployment is the highest. Today, 41% of the working population works in the agricultural industry⁵¹⁰. When mining, fishing and forestry workers are added to this sector, this number rises to severe proportions. Within the Invest India innovation program's scope, it aims to increase productivity in production by equipping this sector with technological equipment and reducing the famine risk by closing the country's current account deficit⁵¹¹. Besides, innovation programs are seen as factors increasing unemployment, as they reduce the need for workers. Although the cost of workers today is less than the price of machinery, there is no increase in this sector's amount of unemployment. Still, the decrease in the expenses in the future may bring creative destruction in this sector. However, the government always states that it is very transparent in this regard. As a matter of fact, the free trade agreement was signed in the Regional Comprehensive Economic Partnership (RCEP) meeting held at the 37th ASEAN Summit. Although India supported this formation from the very beginning, it was withdrawn from this formation because the current level of prices in the country would decrease. This situation would result in unemployment, especially in the agricultural sector⁵¹². Such conditions may indicate that these problems can be overcome with policies that governments will follow consciously, even if it is known that innovation programs bring creative destruction.

Schumpeter states that the innovation programs emerging in economic life create a balance within the imbalance in terms of financial compensation⁵¹³. At this point, he says that the investments made within the scope of FDI policies bring technological innovations to the market, disrupting the existing balance, creating differences and causing existing destructions⁵¹⁴. Hence, at the core of Schumpeter's analysis of capitalist economic growth dynamics is the supply-side consequences of freedom, money or taxation rather than the supply-side implications of innovation and

⁵¹⁰ Ibef, *Indian Agriculture and Allied Industries Report*, (<https://www.ibef.org/industry/agriculture-india.aspx>) Last Access: 24.01.2021

⁵¹¹ Invest India Brochure, *Your Single Window to Invest in India*, (<https://www.investindia.gov.in/brochures>) Last Access: 24.01.2021

⁵¹² Joe C Mathew, *RCEP: 5 Reasons why India stayed away from world's largest trade deal*, 16.12.2021, (<https://www.businesstoday.in/current/economy-politics/rcep-5-reasons-why-india-stayed-away-from-world-largest-trade-deal/story/422113.html>) Last Access: 24.01.2021

⁵¹³ Schumpeter, *The Theory of Economic Development: with a New Introduction by Jong Elliot*, p.72.

⁵¹⁴ *Ibid.*

entrepreneurship and structural competitiveness based on innovation⁵¹⁵. So, companies' competitive power decreases due to entrepreneurs who cannot innovate, and the process of creative destruction in economic life stops⁵¹⁶. In this respect, it is of great importance that the innovation programs made within the Make in India program's scope are separated from the creative destruction at the least scale for the structural changes in the country's economy to be horizontal. The biggest problem in this context is that the producers are exposed to creative destruction due to rapid changes in costs. On the other hand, unemployment and the deterioration of the balance in the markets can also put the innovation works carried out within the Make in India program to prevent growth by causing creative destruction⁵¹⁷. Especially the developments in the textile, agriculture and automobile sector and the recent reports are the Harbingers of this situation⁵¹⁸. However, the government's statements and the official steps taken indicate that they are aware of this creative destruction and that they have taken the necessary steps and will also take it in the future.

IV.IV. Developments and Improvements in the Make in India during (and after) Covid19

IV.IV.I. New Education Policy (NEP) 2020

Announced on 29 July 2020, NEP 2020 is the third comprehensive education policy in India's period since its independence⁵¹⁹. The main goal of New Education Policy (NEP) 2020, which has been working for about five years and was completed in 2019, is to turn the education sector in India into an innovation-based education model. In this

⁵¹⁵ Farrokh Emami-Langroodi, *Schumpeter's Theory of Economic Development: A Study of the Creative Destruction and Entrepreneurship Effects on the Economic Growth*, Rochester, NY: Social Science Research Network, working paper, 2017

⁵¹⁶ Miguel Angel Galindo and Maria Teresa Mendez, "Entrepreneurship, economic growth, and innovation: Are feedback effects at work?", *Journal of Business Research*, Vol.67, No.5, May 2014, p.827.

⁵¹⁷ Prasanna Mohanty, *Rebooting Economy VI: Is Modi govt ignoring job crisis in India or unable to tackle it?*

(<https://www.businesstoday.in/opinion/columns/indian-economy-modi-govt-job-crisis-in-india-job-losses-organised-sector-unorganised-sector-informal-workers/story/410010.html>)

Last Access: 24.01.2021

⁵¹⁸ International Labour Organization (ILO), *Technological Change and Employment: Creative Destruction*, Asia-Pacific Working Paper Series, 2018

⁵¹⁹ Ministry of Education, *The New Policy 2020*, 29 July 2020

(<https://pib.gov.in/PressReleasePage.aspx?PRID=1642061>) Last Access: 30.01.2021

context, the basic policy is a student-centred education approach and a trend that prioritizes students' abilities⁵²⁰. Nevertheless, while the New Education Policy (NEP) 2020 proposes a single regulator for higher education institutions, it adopts the universalization of access to school education at all levels from pre-primary education to secondary education and the understanding of education for all within the scope of its 2030 targets⁵²¹.

The first education policy in India was initiated in 1968, and then a new education policy was implemented in 1986. Although some changes were implemented in the education policy in 1992, a comprehensive regulation was not made until 2020. In 2020, a new education policy containing radical changes was developed by the government in order to keep up with the needs of the age. In the statements made by the government, it was said that the New Education Policy (NEP) 2020 will be a comprehensive framework by guiding the development of education in the country⁵²². It is stated in the published declaration that the following basically seven questions will be addressed: ease of participation, quality of courses offered, equity, system efficiency, governance and management, facilities of research and development, and financial commitment involved⁵²³. These criteria are basically addressed under four bare roofs in new education policies: School Education, Higher Education, Other Key Areas of Focus, and Making it Happen. New Education Policy (NEP) 2020 consists of a comprehensive structure serving 27 different areas under these four titles⁵²⁴.

The most fundamental innovations of the New Education Policy (NEP) 2020 are expected to be in the field of School Education and Higher Education. First of all, it is aimed that children of all ages benefit from formal education with maximum benefit by changing the current '10 + 2' curriculum structure with '5 + 3 + 3 + 4' structure⁵²⁵.

⁵²⁰ Sreeramana Aithal and Shubhrajyotsna Aithal, "Analysis of the Indian National Education Policy 2020 towards Objectives", *International Journal of Management Technology and Social Sciences*, Vol.5, No.2, August 2020, p.21.

⁵²¹ *Ibid.*

⁵²² Nandini, *New Education Policy 2020 Highlights: School and higher education to see major changes* (<https://www.hindustantimes.com/education/new-education-policy-2020-live-updates-important-takeaways/story-yYm1QaeNyFW4uTTU3g9bJO.html>) Last Access: 30.01.2021

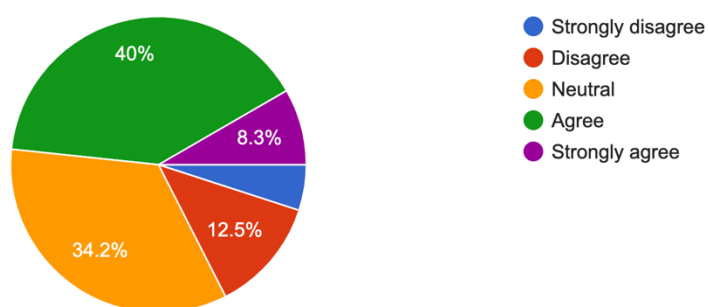
⁵²³ Naina Elizabeth Matthew, *A Deeper Look at India's New Education Policy 2020* (<https://www.jurist.org/commentary/2020/08/naina-mathew-india-new-education-policy-2020/>) Last Access: 30.01.2021

⁵²⁴ Ministry of Human Resource Development, *National Education Policy 2020* (https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf) Last Access: 30.01.2020

⁵²⁵ Kanika Khurana, *New Education Policy 2020: From Single Higher Education to revised structure of K12, Key Highlights*

This new project also aims to ensure that no student is at a disadvantage. In line with this goal, Gender Inclusion Fund and Special Education Zones will be instituted in the future. It is also recommended that the education environment up to the 5th grade is optional in the regional language, education in the mother tongue or in the local language. Sanskrit will be mainstreamed in schools as one of the language options available. It aims to standardize and popularize the Indian sign language for deaf children throughout the country⁵²⁶. The answers given to the questionnaire, in which the trust in the newly announced education policy under the Make in India program is tested, are as follows;

 The new missions announced under the New India Samachar(NIS) and the New Education Policy(NEP) mission will positively affect the impact of sustainable development.
 120 responses



Graph: Question-17 in the Questionnaire

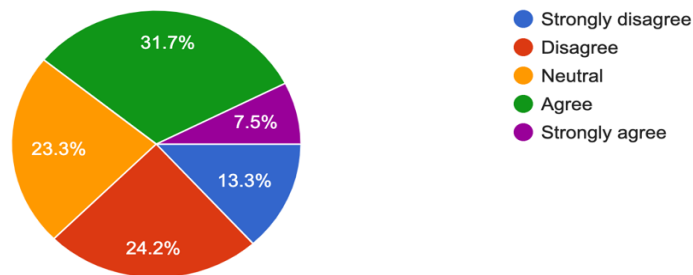
In the current situation, 8.3% of the answers given to the questions about the effect of the new education policy under the program Make in India are completely positive and 40% are positive, while 34.2% are neutral, 12/5% are negative and 5% are completely negative. The generalization of the answers given, and the lack of a clear result may be related to the fact that the impact of the program has not yet been developed. In addition, the results of testing the responses to the digitalization of the new education policy are as follows;

(<https://www.timesnownews.com/education/article/mhrd-nep-2020-new-education-policy-pdf-highlights/629005>) Last Access: 30.01.2021

⁵²⁶ Mathachan K J, "Draft National Educational Policy 2019 and Foreign Language Education in India: A Perspective", *An International Multidisciplinary Research e-Journal*, Vol.6, No.1, September 2019, p. 23.

The new education policies and missions implemented in the Covid-19 period are sufficient for digitalization in education.

120 responses



Graph: Question-17 in the Questionnaire

While 7.5% of the answers given to the questions related to the digitalization of the new education policy within the scope of the Make in India program were completely positive and 31.7% were positive, 23.3% were neutral, 24.2% were negative and 13.3% were completely negative. The generalization of the answers given, and the lack of a clear result may be related to the fact that the impact of the program has not yet been developed.

Within the scope of the New Education Policy (NEP) 2020, it is planned to evaluate the performance of all students on an annual basis and make performance assessments. In this respect, it aims to reduce the curriculum content and eliminate rote learning teaching⁵²⁷. In addition to these, it is desired to focus on artistic and scientific activities by eliminating school education and lessons' strict limitations. It is also aimed to provide vocational training starting from the 6th grade and to develop internship opportunities for those who tend to vocational education. The main goal of taking such a step is to develop early skills and children's creativity.

Another innovation initiative for school education in New Education Policy (NEP) 2020 is that it is a coding course starting from the 6th grade⁵²⁸. In this age where technology increases so much, coding can become the language of the future. Having well-equipped in this regard and developing analytical and logical thinking will also boost children's innovation and creativity. This situation is also essential in terms of making education not only in school but also in the whole life. At this point, Prime Minister Modi stated that the new education policy would transform India into an IT

⁵²⁷ *Ibid.*

⁵²⁸ *National Educational Policy 2020*

centre in where millions of vital, learning, research and innovation are so important for education⁵²⁹.

According to the new policy, it is planned to give more autonomy to private universities. Besides, international universities will open branches in India and contribute to science⁵³⁰. This is an essential step in the further liberation of higher education and its self-independence by being purified from central government institutions. Thanks to this accord, it aims to increase the quality and level of education and save education from bureaucratic shallowness. Central education systems, in general, are seen as a significant obstacle to education. In this new policy, the state institutions need to remain entirely behind as a control mechanism in terms of both the functionality of the education and the control of education quality⁵³¹.

It aims to ensure that institutions and organizations with an educational policy and financial autonomy create additional courses and departments. However, without funding from government agencies, institutions will naturally turn to students. The tuition fee will significantly increase not only for the students at that school but also for all students attending that institution. When this situation is taken as a common ground with other departments of the New Education Policy (NEP) 2020, the multiple graduation options at that universities will be diversified in the number of students graduated by the school. For example, an institution that provides four-year education is aimed to give certificate, diploma, bachelor's degree and research bachelor's degrees each year. In this way, the trainee will be able to leave the school in the year he wants and leave the school with a document according to degree. Of course, an important point should be underlined here. The fact that universities are paid brings financial liability with it. With financial autonomy putting a financial burden on students and the availability of certification each year, more students may have to drop out of school. This situation can create an inequality for financially gifted and disabled students. Students who are better off financially will be able to have a higher chance of education and better opportunities. This can be amount to dilution of the Right to Education Act⁵³².

⁵²⁹(https://www.youtube.com/watch?v=vx1YBQYmAi4&ab_channel=IndiaToday)
Last Access: 30.01.2021

⁵³⁰ *National Educational Policy 2020*

⁵³¹ Saumen Chattopadhyay, "National Education Policy 2020: An Uncertain Future for Indian Higher Education", *Economic & Political Weekly*, Vol.55, No.46, 21 November 2020

⁵³² Sreeramana Aithal and Shubhrajyotsna Aithal, "Analysis of the National Education Policy 2020 towards Achieving its Objectives", *International Journal of Management, Technology, and Social*

The government, which aims to eliminate the sharp distinction between academic and professional currents with its new education policy, aims to focus on vocational and polytechnic education for students with the new policy with the slogan 'redesigning vocational education'. It is aimed to introduce vocational training from 6th grade, including internship opportunities from 6th grade to 12th grade. It is aimed that all such courses are elective, and it is aimed to be careful not to have any privileged structure. Children who are economically backwards would end up opting for these streams. Introducing this at such an age will be a barrier for first-generation learners and those from disadvantaged backgrounds to access higher education⁵³³.

The New Education Policy (NEP) 2020 plans to implement many needed positive changes. However, before executing the program, it is necessary to examine India's suitability to the social structure and reduce the new education policy's opportunity. As a matter of fact, Tilak underlines that this new education program will increase social inequality and create adverse effects for the poor⁵³⁴. Likewise, Panditrao sees these new policies as a program that meets demographic equality. They also state that this prediction is made up of arguments that are far from gender, religion, secularism, etc. in the program and that there are decisions taken without testing and consulting state governments⁵³⁵.

Every step taken within the Make in India program aims to develop the country's economy and make India a more liveable country. There is only one way to maintain all these steps: education. It can be concluded that the primary goal of the New Education Policy (NEP) 2020 in this context is to create a more educated society and to meet the educated and skilled workers that the country needs. As a matter of fact, all of the sub-headings covered in the New Education Policy (NEP) 2020 constitute the generality of what emerges from these current needs. In this case, the implementation and functionalization of this program are seen as an accelerating effect on the country's development within the scope of the Make in India program.

Sciences (IJMTS), Paper no: 102549, August 2020, p.31 (<https://mpra.ub.uni-muenchen.de/102549/>)
Last Access: 30.01.2021

⁵³³ Matthew, *Ibid.*

⁵³⁴ Jandhyala B. G. Tilak, "Promising but Perplexing Solutions: A Critique of the Draft National Education Policy 2019", *Social Change*, Vol.49, No.4, December 2019, p.3.

⁵³⁵ Mridul Madhav Panditrao and Minnu Mridul Panditrao, "National Education Policy 2020: What is in it for a student, a parent, a teacher, or us, as a Higher Education Institution/University?", *Adesh University Journal of Medical Sciences & Research*, Vol.2, December 2020, p.71,

IV.IV.II. National Digital Health Mission (NDHM)

National Digital Health Mission is a public institution that aims to provide medical identity documents to Indian citizens under the Make in India program and will operate within this scope. This program, which was first announced in the National Digital Health Blueprint document⁵³⁶ in 2019 and whose preliminary study was initiated, aims to ensure the use of health services provided within the scope of Ayushman Bharat Yojana and easy access to health services with the newly created identity⁵³⁷. This mission, announced by Prime Minister Modi on the 74th day of India's independence⁵³⁸, aims to ensure health ID communication, digitized health records and doctors and health institutions with these cards and records, and improve health services.

Announced as part of the Make in India program, this mission aims to ensure efficiency, accessibility, inclusiveness and safety in terms of health, while saving time and money in achieving these goals. Digitizing population health information in a single database is a fundamental step towards improving public health services. Ayushman Bharat Yojana, a program aimed at providing free medical assistance to 40% of the low-income population, was launched in 2018. With this mission, this program has been systematized and expanded further⁵³⁹.

The biggest challenge in developing such a system is data security. The protection of citizens' national identity numbers and payment instruments, the risk of identifying identity information in the Aadhar system to reveal personal information with this new health system are current security threats. This mission is a harbinger of the future of new initiatives in the future to solve such problems and improve the service. As a result, these health services created under the Make in India program are a revolution, and in the digitalizing world, such a service may result in India receiving better health care in the future.

⁵³⁶https://www.nhp.gov.in/NHPfiles/National_Digital_Health_Blueprint_Report_comments_invited.pdf

⁵³⁷ Ministry of Health and Family Welfare, *Press Release* (<https://pib.gov.in/PressReleaseDetail.aspx?PRID=1646049>) Last Access: 31.01.2021

⁵³⁸<https://www.firstpost.com/health/narendra-modi-launches-national-digital-health-mission-all-you-need-to-know-about-new-health-id-8718681.html> Last Access: 31.01.2021

⁵³⁹ Seema Singh and Maitri Porecha, *Behind the rush and hush of India's National Digital Health Mission* (<https://the-ken.com/story/behind-the-rush-and-hush-of-indias-digital-health-mission/>) Last Access: 31.01.2021

IV.IV.III. The Farming Produce Trade and Commerce Act 2020

The Farming Produce Trade and Commerce Act 2020 law is a law that allows Agricultural Produce Market Committees (APMC markets) to sell farmers' products in the market also in the interstate and interstate markets in India⁵⁴⁰. Within the scope of this law created within the Make in India program's scope, the main goal is to increase the trade volume within the country by expanding the interstate agricultural activities and reducing effect on the import of agricultural products. Before 2020 legislation, agricultural activities were carried out only in APMC marketplaces. This law is freed from the taxes on industrial institutions such as agricultural production factories, farmers, etc. The main goal in making this decision is to encourage unimpeded interstate trade, create alternative trade channels for farmers, and eliminate rent on agricultural products. In addition to opening online sales channels directly to manufacturers, it also affects the prices of their products⁵⁴¹.

It is claimed that this law has adverse effects in addition to all these. For example, if the law completely ignores the APMC and creates a separate business structure, this committee will not be able to collect taxes⁵⁴². In addition, the law overrides the decisions taken by this committee and provides incentives for buyers to buy products outside of this committee. Bhattacharya and Mazumdar also state that the new laws will negatively affect the price balance of free trade as farmers have unnecessary trading restrictions⁵⁴³. The change in this law is naturally thought to result in political turmoil, as it is claimed that it will adversely affect fundamental rights and trade in the central states of mandies.

This law is of paramount importance for free trade and the equal distribution of farmers' profitability in India. As a matter of fact, India's government recently decided not to enter the recently established RCEP to protect the rights of farmers. With this

⁵⁴⁰ <http://egazette.nic.in/WriteReadData/2020/222039.pdf> Last Access: 31.01.2021

⁵⁴¹ <https://www.makeinindia.com/the-farming-produce-trade-and-commerce-act-20203> Last Access: 31.01.2021

⁵⁴² Shaswat Bhandari, *What are the 3 new farm Bills: Benefits for farmers* (<https://www.indiatvnews.com/news/india/what-are-new-farm-bills-benefits-farmers-protests-all-you-need-to-know-650274>) Last Access: 31.01.2021

⁵⁴³ Monojit Bhattacharya and Mainak Mazumdar, *can free-trade and corporate farming improve farmer income?* (<https://www.thehindubusinessline.com/opinion/can-free-trade-and-corporate-farming-improve-farmer-income/article32745489.ece>) Last Access: 31.01.2021

law, India's government aims to create an environment for the farmers, whose interests they protect, to be able to trade on equal terms.

IV.IV.IV. Vocal for Local Campaign and PM Formalization of Micro Food Processing Enterprises (PM FME) Scheme

Announced by Prime Minister Modi on 20 May 2020, this scheme has been decided to be implemented over five years starting from the 2020-21 fiscal year until the 2024-25 fiscal year. With this scheme announced under the Make in India program, it is planned to help an average of 200 thousand micro-enterprises in total with loan-linked subsidies⁵⁴⁴.

One of India's main shortcomings is that small-scale companies have difficulties in payments, cannot take credit, technological deficiencies, and health institutions have not taken any insurance. Policies to increase access to finance and monetary aid to micronutrient enterprises that are aimed to be reached with this scheme.

The main objectives of this scheme on the official site of the Make in India program are listed as follows:

- To increase the revenues of the target enterprises,
- To enhance the compliance with a better-quality food and increase level of safety,
- To strengthen the capability and competence of the support systems,
- To shift from an unorganized sector to a formal industry,
- To encourage the transformation of waste into wealth activities⁵⁴⁵.

This scheme is essential for the Make in India program's sustainability and for direct intervention when any deficiency is seen. The rapid decision-making mechanism of NITI Aayog enables immediate decision making and quick revision of shortcomings or errors in any crisis period. In this respect, this diagram is important for demonstrating the functionality of the Make in India program.

⁵⁴⁴ <https://mofpi.nic.in/pmfine/> Last Access: 31.01.2021

⁵⁴⁵ <https://www.makeinindia.com/pm-formalization-of-micro-food-processing-enterprises-pm-fme-scheme> Last Access: 31.01.2021

IV.IV.V. The Defence Acquisition Procedure (DAP) 2020

The DPP, published as a draft by the Ministry of Defence in March 2020, entered into force in October 2020 and was published as Defence Procurement Procedure (DPP) 2020⁵⁴⁶. In Defence Acquisition Procedure (DAP) 2020, which is prepared in line with the Make in India program, the main target is to equip existing systems with artificial intelligence, develop local software and encourage start-ups for the defence industry in order to create the defence industry.

The defence industry constitutes a severe working group on its own scale. However, the part evaluated within the Make in India program's scope includes innovations and innovations to be made on existing systems, new domestic and national production, reduction of foreign dependency, and transition to entirely local written systems. However, the most crucial point that should not be forgotten here is that the domestic production in the defence industry and the reduction of costs should be spread over time. In the defence industry, making a very rapid decision and making innovation may not be compatible with the Ministry's goal of increasing the defence supply efficiency in the current environment⁵⁴⁷.

Some of the experts criticized the new offset policy for exempting Intergovernmental agreements from offset obligations as this could reduce the number of foreign vendors carrying out offset obligations⁵⁴⁸. Considering such agreements mainly relate to high-end equipment that would impact the transfer of advanced technology to India from foreign vendors and continue India's dependence on imports⁵⁴⁹. In this case, making efficiency evaluations of this sector within the Make in India program and making it according to the results of start-ups and investments in the future may result in a better interpretation of this sector.

⁵⁴⁶ Ministry of Defense, *Draft DPP-2020*

(https://www.mod.gov.in/sites/default/files/draftdppnew200320c_0.pdf) Last Access: 01.02.2021

⁵⁴⁷ Amit Cowshish, *Decoding Defense Acquisition Procedure 2020*, MP-IDS A, Issue Brief, November 2020, p.7.

⁵⁴⁸ Ikigai Law, *India's Defence Acquisition Procedure 2020: An overview*

(<https://www.ikigailaw.com/indias-defence-acquisition-procedure-2020-an-overview/#acceptLicense>)

Last Access: 01.02.2021

⁵⁴⁹ *Ibid.*

IV.IV.VI. Bharatmala Pariyojana Project

Bharatmala Pariyojana Project is an umbrella program announced by the Ministry of Road Transport and Highways (MoRTH) under the Make in India program. Under this program, it is aimed to improve and develop all infrastructure works across India.

With this program, it is essential in terms of optimizing the mobility of both freight and transportation. Within this project's scope, besides providing National highways to more than 500 regions, it aims to create permanent employment directly and indirectly⁵⁵⁰. This project, which encompasses all existing highways, is essential for the rapid and efficient execution of all infrastructure programs under the Make in India program from one location.

In the statement made by the official site of the Make in India program, the key features of this project are as follows:

- Improvement in the quality of roads,
- Improvement in the efficiency of corridors through operationalization of Multimodal Logistics Parks and by addressing the issue of choke points,
- Improvement in the levels of connectivity in the North East and also increasing alignment of connectivity efforts with inland waterways,
- Emphasis on the use of science and technology in planning, implementing and monitoring of the program⁵⁵¹.

⁵⁵⁰ <https://www.india.gov.in/spotlight/bharatmala-pariyojana-stepping-stone-towards-new-india>
Last Access: 01.02.2021

⁵⁵¹ <https://www.makeinindia.com/bharatmala-pariyojana-visionary-corridor-across-india>
Last Access: 01.02.2021



The total amount of investment committed under the Bharatmala Pariyojana project is an average of 5.35 lakh crore per 83.677km⁵⁵². Within the scope of the Make in India program, highways are planned to be built in Gujarat, Rajasthan, Punjab and Haryana, followed by the completion of road services in the Himalayan states (Jammu and Kashmir, Himachal Pradesh, Uttarakhand), and then a road map extending to West Bengal, Sikkim, Assam, Arunachal Pradesh through Uttar Pradesh and Bihar⁵⁵³. It aims to reach every region in the country through the side roads of the main roads and make infrastructure and investments in these regions. As a result, an umbrella program aims to cover schemes such as Sagarmala, Industrial Corridors, Dedicated Freight Corridors BharatNet, Digital India, under the Make in India program. This project was of great importance in terms of completing the investments and developing sustainable development policies within the scope of Make in India program in the following periods.

⁵⁵² <https://www.businessstoday.in/current/economy-politics/bharatmala-road-project-to-be-launched-soon-20000-km-roads-in-1st-phase-nitin-gadkari/story/251198.html> Last Access: 01.02.2021

⁵⁵³ Ministry of Road Transport & Highways, Bharatmala Pariyojana Report, October 2017 (<https://archive.pib.gov.in/documents/rlink/2017/oct/p2017102503.pdf>) Last Access: 01.02.2021



Conclusion

Conclusion

The close relationship between the Make in India program and sustainable development is one of the basic concepts behind this thesis. The Make in India program permeates every element in the Indian economy. For this reason, it is critical for the future national and economic independence of the state to define the basic lines of the Make in India program and develop a more applicable program. Sectoral progress challenges, following a lack of resources or knowledge, are a serious problem for developing countries. In this respect, this study has targeted this unexplored area in the India's sustainable development programs.

After the historical context of global sustainable development theories, regional development policies and India's development programs discussed in the first part, in the second part, detailed analyses of all programs, sectors and studies within the scope of the Make in India program are explained. Particular attention should be paid to the fact that as a result of the increasing volumes of the sectors covered by the Make in India program, the government follows a policy towards increasing domestic production with joint partnerships within the scope of FDI programs. It is necessary to schedule the infrastructure works for the expanding sectoral markets in a way that they do not occur with international links and development policies should be developed in this context. As a matter of fact, infrastructure programs and digitalization within the scope of the Make in India program are also aimed at eliminating these deficiencies. While these expanding sectoral structures and infrastructures have an increasing effect on production dynamics, they also benefit from expanding the domestic market volume with localization, reducing unemployment and making India a more liveable social country.

Finally, the drive to reduce poverty requires access to cleaner and more efficient cities and regions than those traditionally used by the poor. This convergence of economic and demographic trends highlights the specific challenges faced by Indian policy makers. Among the more pressing trials for the development include finding more of the right forms of sustainable development in sufficient quantities; carrying the current program forward with new targets in the future; implementing comparative improvements with the current program by analysing the programs of other developing countries; developing sectoral programs, national and international collaborations for achieving the determined goals and for maximum benefit.

The second part also compiles progress reports of the sectors under the Make in India program from the publications of many institutions and distills a few key trends. In all scenarios, FDI policies are likely to have a key role in sectoral progress. Current trends under the Make in India program show that the sectors attach great importance to FDI policies that reduce imports and increase domestic production. Considering the size of the sectors covered by the Make in India program, it is observed that the current trends are sufficient in sectoral growth. However, it should not be forgotten that this situation will result in growth, not development. It should not be forgotten that the share of the sectors under the Make in India program in domestic, R&D and international markets should increase for sustainable development.

As the FDI, Make in India program expands further and becomes a regional program encompassing all branches of India's industry, it will continue to be an important part of India's sustainable development. In fact, the formulation of this is very simple: both the improvement of the industrial branches and the opening of new markets in the country and the expansion of the market volume, the encouragement of investment in India with various incentive programs instead of importing in places where the means of production are insufficient, the investments to be made with these incentives, the funding of the labour force, and the result by ensuring that the IPR rights of this domestic production made in India remain within the country, ensuring dominance in national and international markets with this localization. Until recently, as the market developed, domesticity and foreign dependency decreased. As of the upcoming periods, it seems that most of the imports will be due to the demand for finished goods rather than high-tech products.

Other innovations in the country are on the interconnection of these production channels and the coordination of infrastructure works. As the Indian economy continues to modernize, infrastructure work will increase as a result of the needs of the regions. In other words, these infrastructure works will rise today's standards in the medium term, and global integration will be maximized in the long term. The 2025 Infrastructure Studies targets within the scope of the Make in India program clearly express these. The coordinated connection of the land, sea and airline connections of the industrial corridors, the integration with international trade routes and the elimination of transportation problems in the sale of the produced product are also important in terms of seeing the success of the Make in India program. The long-term goals of the Make

in India program are particularly promising in this regard. The enrichment of the sectors with private capital will be like the cream on this cake.

However, all forecasts and trends examined conclude “The Make in India Initiative program will help India’s sustainable economic development; increase the workforce quality, and amount; reduce the negative effects of anti-competitive practices in India” under the present conditions. The same result shows the feasibility of applications within this scope within the medium- and long-term plans under the Make in India program. Under the Make in India program, India can increase the production level in the country, and if the current economic growth continues, it can contribute to the development of the country by further developing the Make in India program. In sectors where production capacity is insufficient, domestic production can be encouraged with FDI policies. This situation is a factor reducing foreign dependency.

The scope of the Make in India program and sectoral advances were discussed in order to address the sustainable economic development situation of India. However, with the developments in the international arena, no investigations as a field study were conducted. As explained in Chapter-3, India's global policies, especially that it follows common development policies with China, comparing this program with China's programs are an analysis of competing interests. In this context, ensuring the sustainability of the Make in India program can be resolved by dividing it into two broad areas: revising the deficiencies of the Make in India program on a sectoral basis and as a result of current developments, and analysing the measures that can be taken for global competition by analysing China's development policies in depth. For the solution of the first problem, new missions and scheme programs are announced and new incentives are applied since the Covid19 period, while for the solution of the second problem, other states in the global world need joint bilateral convergences and the analysis of the ways followed in order to have a share in the global market.

The problem for the Make in India program arises when considering how to achieve these goals. This brings us to the other fundamental relationship that underpins the thesis: the relationship between sustainable development and Make in India program. As explained in the previous analysis, in sectors where production is insufficient, FDI programs have a reducing effect on foreign dependency of the country. Technology transfer in domestic production is associated with the parameters of development rather than the goals of the Make in India program. Technically speaking,

this classical teaching focuses more on activity than content. In short, the discussion boils down to a single question: What role do the goals under the Make in India program play in India's development?

As it is known, the Indian government transferred the powers of the development agency to NITI Aayog. This institution derives its structural strength from sectoral structuring. These sectors, on the other hand, dominate the production activities in India. In this case, development in these areas will both bring expertise in the field and increase employment. In addition, the knowledge level required for production and the need for trained workers will be met. In this context, there is an innovation for the development of each parameter, a mission to cover the gap in the areas where every innovation is interrupted, and an incentive program for each mission to be successful. This network constitutes the basic scheme of the Make in India program. In this respect, while generally choosing the deductive method while writing the thesis, the method of induction was also used so that the research questions were not left unanswered. Indeed, India's sustainable development adventure has been analysed with surveys and case studies, from incentive programs to missions, from innovation programs to basic scheme. Based on the study that first hypothesis is validated that “The Make in India Initiative program will help India’s sustainable economic development; increase the workforce quality, and amount; reduce the negative effects of anti-competitive practices in India.”

Historically, attempts to reform a sector by improving productivity and quality by increasing production required not to disrupt the existing production status quo. But this situation also prevented the sectors from gathering in various blocks and this gathering prevented the development. Indeed, the trade cartels of the past have managed to become today's conglomerates thanks to their status quo in this market. However, an inclusive innovation program from the foundation to the top will both eliminate this irregularity and pave the way to use growth as a positive development tool. As a matter of fact, the Make in India program is trying to improve the existing one through these paths and solve the non-existent through various exclusive partnerships. As It has been seen especially in case studies, this growth has continued and within the scope of FDI programs, localization and technology transfer have increased instead of importing the need in the market. As a result of these projects, existing development goals were largely insufficient, and high sectoral growth led the government to announce new schemes and set new long-term goals. As a matter of fact, new targets in the defence

industry, 2030 missions in infrastructure works, efforts to make digitalization an inclusive mission for the whole country, new education policies and all other missions announced recently can be described as the results of the renewal of the targets in this system. Based on the study, the second hypothesis is validated that “If India maintains its current level of economic growth, the country will need larger sustainable development policies.”

Like India's development policies within the scope of the Make in India program, there are occasional cases where concessions are made in temporary and partial domestic production policies for the security of the country. Indeed, in the defence industry. The fact that foreign dependency is still very high, the current account deficit against China is very high, and the selectivity in bilateral relations are a clear indication that the current program does not act with a full liberal market understanding and that localization can be compromised when necessary. Most of these concessions are sectors that cannot be resolved in the short term. The main tool used to gain access to resources is the signing of agreements with structures that are strong in potential sectors of the state structure - national companies, ministries and diplomacy. For example, joint programs with South Korea and Japan for studies on train locomotives and rails, the fact that there is still a serious dependence on Russia in the defence industry, and the dependence on Israel for agriculture reflect the continuity of existing policies to transform these short-term goals into localization in the long term. In short, diplomatic affinities in such cases also position India's place in the global market. However, exceptions to this situation are possible. For example, although the political crisis continues with China, dependence on technology and semi-finished goods is particularly high. However, all these are important steps in the short, medium and long term under the Make in India program. Based on the study, the third hypothesis is validated that “A thorough analysis of the Make in India Program will provide an understanding of the areas in which sustainable economic policies are planned and the objectives of sustainable economic policies.”

The role of politics in sourcing abroad is a slightly more complex issue, and clarifying these issues depends on case studies. As with the sectoral targets of sustainable development programs, India's nation-state structure and the search for investors from overseas countries bring with it the maximum use of bureaucracy tools. However, chapters three and four, which confirm the claims made in the theoretical framework, confirm the state's contribution to the acquisition of investments and

technology transfer from other countries. Although these needs seem easy to obtain, it is not easy to meet a need in development programs, as seen in the case of China.

The key to understanding the context in which these obstacles arise is related to the provision of international trade and bilateral relations. This approach explains how things turn out, how strategic riddles emerge, but also offers a variety of solutions for innovation programs to overcome future problems. Indeed, the example of China supports this thesis.

The development policies that China has followed from the past to the present, have made China the "factory of the world" today. China is one of the countries with the sharpest east-west divide. Since its establishment, the easts China is a production centre, while the west is a backyard that lives on natural resources. Indeed, the first the five-year development programs was aimed at eliminating imbalances in development in China. These development and innovation series, which started with regional inequality, have nowadays made China's R&D producing, high-tech product owner, partially prevented immigration within the country, and enabled such a large population to be controlled. China, which started its global integration moves after the 1970s and is dependent on innovation programs that include the sea and land domination strategies, which have announced the fruits of these policies in the long term today, aims to ensure the security of trade routes with these policies in the future, and aims to make. These regional developments, which started in the early 2000s, continued with the determination of new goals in the 11th five-year development plan in 2006, as a matter of fact, the development programs in China, initiated with the "Made in China 2025 and "Belt and Road Initiative" programs, were replaced by global programs.

The measures taken for the growth of China from the past to the present have caused millions of west Chinese to migrate to the east due to unemployment. As a matter of fact, it is estimated that 200 million people in total migrated during this period. However, the emphasis on "welfare for all" applied in the 11th five development program and as a result in the development of the western region. As a result of the infrastructure investments made, all sectoral infrastructures have been completed in western China today, both the economic volume of the country has been expanded, and significant progress has been made in the sectoral progress on a global scale. Currently, more than half of all trade and production volume in the world originates from these regions. Therefore, China aims to establish a worldwide R&D centre with these projects.

Some analysts call these projects as efforts to expand China's political and economic hinterland, as a matter of fact, those who answered the questions with China in the survey we conducted regarding this. In addition, China, which determined a central management approach as a form of management, followed steps that made this pressure felt in its development programs. But India's democratic structure requires transparency in any policy followed. However, the examination of China's development policies was of great importance both in terms of strategic steps to be taken against China and in terms of developing moves against these programs. As a matter of fact, the moves that China poses a threat to India in its international programs have been examined, and the studies of this thesis in this field have been of great importance in terms of pursuing extra policies both in this regard and in the global trade market. Based on the study, the fourth hypothesis is validated that “Examining the development policies of China have contributed to the Make in India Initiative program.”

From all the analyses carried out in this study, seven key findings emerge:

- i. The Make in India program has helped India's sustainable economic development,
- ii. Under the Make in India program, unemployment has decreased in India,
- iii. The need for skilled workers have been redress,
- iv. New policies, missions or innovation programs under the Make in India program have been used for the continuity of long-term development programs,
- v. As a result of the comprehensive analysis of the Make in India program, factors that increase the productivity of all sectors were determined and adapted,
- vi. China's development programs were more global than the Make in India program,
- vii. Unlike the Make in India program, China's development programs were far from decentralised and more centralized.

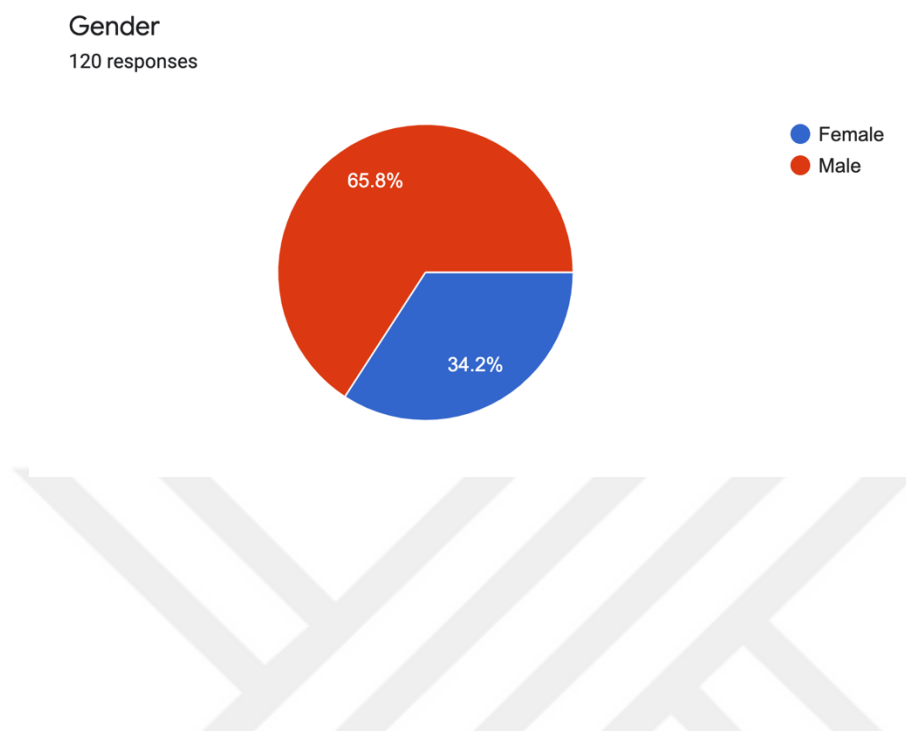
In this case, it shows that he uses these development programs positively and negatively in his bilateral relations with other countries. Finally, India's development policies are self-regenerative under the Make in India program and can adapt to new programs in the long term. In this case, on the one hand, it results in the use of existing programs without being affected by creative destruction, on the other hand, it is regionally inclusive and horizontally promoting development. Moreover, while the perception of the “New Mindset” under the Make in India program is at the centre of many of the

structures of existing programs, it is also key to realizing the elements of development with greater growth in the medium term.

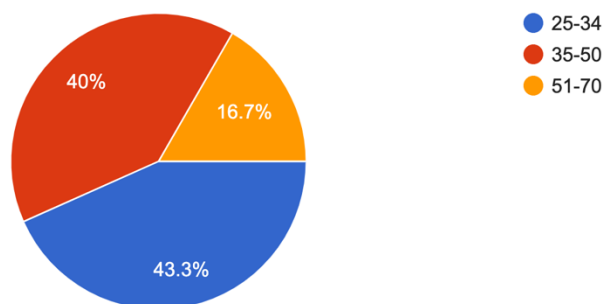
The study also makes it clear that while sustainable development policy is considered important for India's future, sufficient investment is still not realized to put a viable sustainable development policy into practice. As a matter of fact, the negative effects of the developments on a global scale on the Indian economy, the negative effects of the existing bilateral relations on the FDI policies and the boycott moves as a result of the problems experienced with China are examples of this situation. As emphasized that the expansionism of China's moves in international trade routes made India a more defensive role in making its move, resulting in an emphasis on innovation in all policies made under the Make in India program. These arguments are fully supported in the survey and case studies.

These findings are the basis of the contribution of this thesis to knowledge. But the emphasis on these findings is the detailed and integrated analysis of the Make in India program, and is the level of analysis undertaken in India's sustainable development policies. There is no any other study covers the breadth of the areas studied and the depth of analysis. These are what makes this works so unique and valuable.

Appendix-1: Questionnaire Results

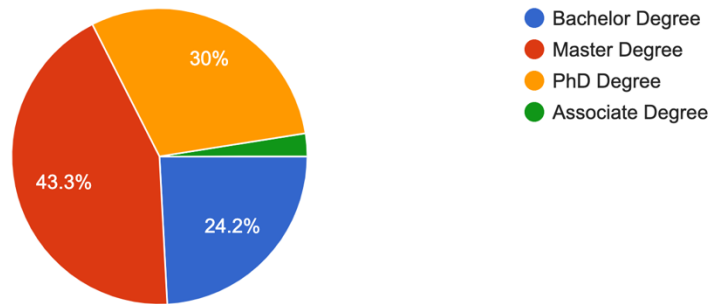


What is your Age?
120 responses

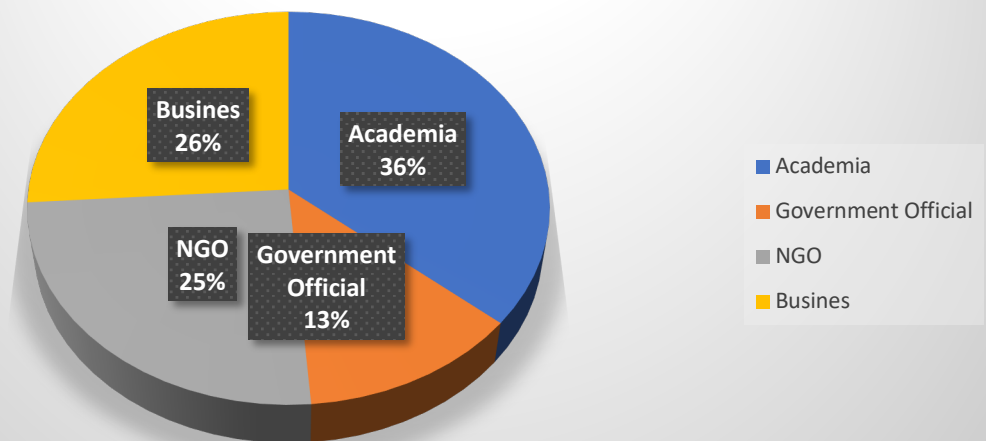


Education Degree

120 responses



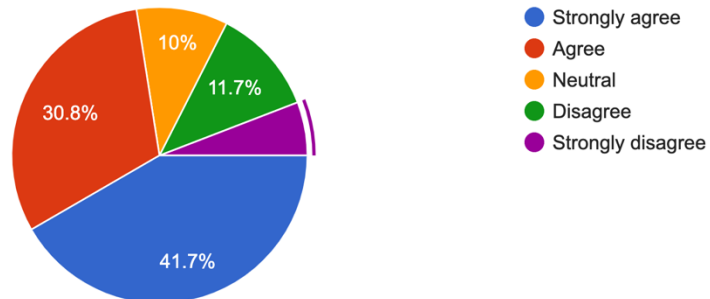
What is your Occupation? (120 responses)



Section-1

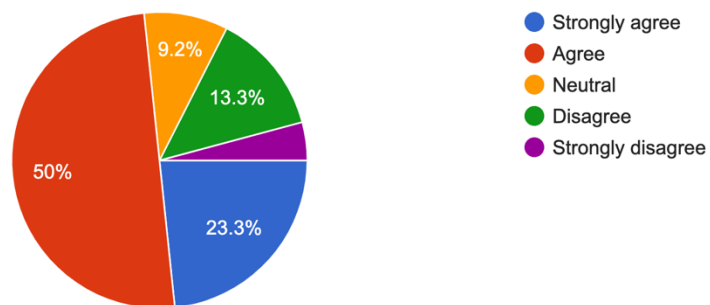
The 'Make in India' program has a positive impact on India's sustainable development policies.

120 responses



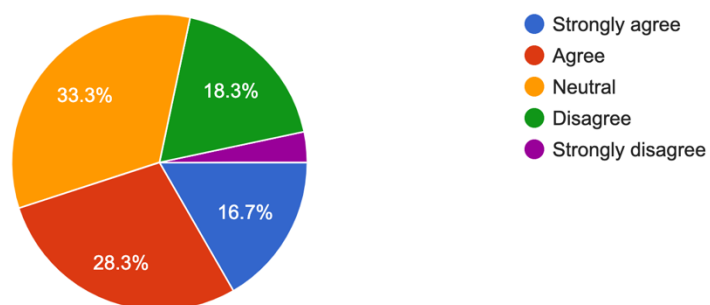
The 'Make in India' program includes plans to address unemployment in India.

120 responses



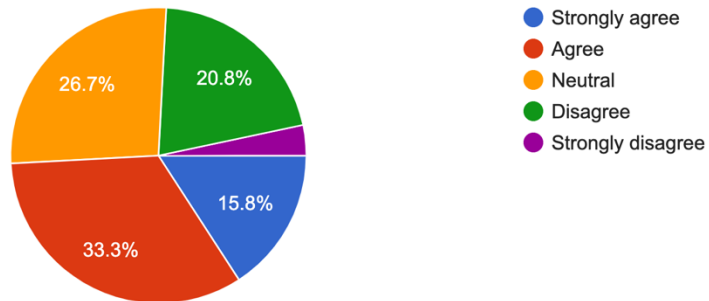
The infrastructure works planned within the scope of the 'Make in India' program are sufficient.

120 responses



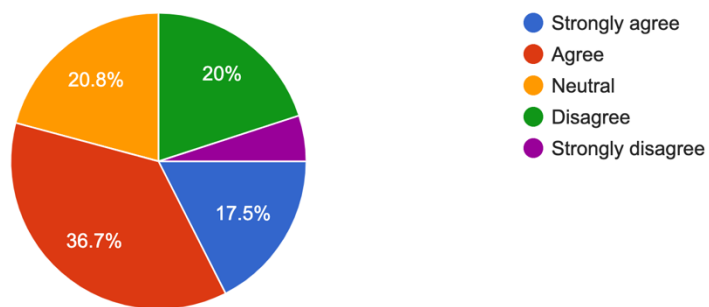
The digital infrastructure works planned within the scope of the 'Make in India' program are sufficient.

120 responses



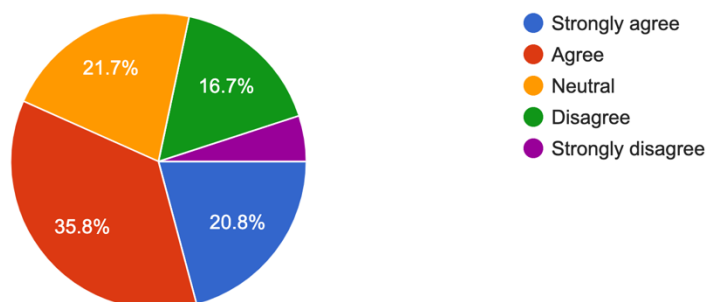
The missions and projects announced under the 'Make in India' program are effective for the development policies planned to be announced in the coming periods.

120 responses



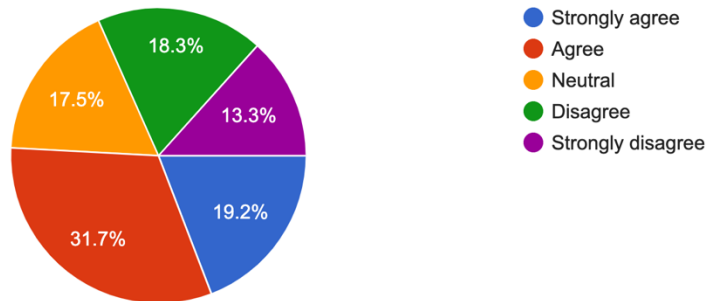
The 'Make in India' program only aims at sustainable economic development.

120 responses



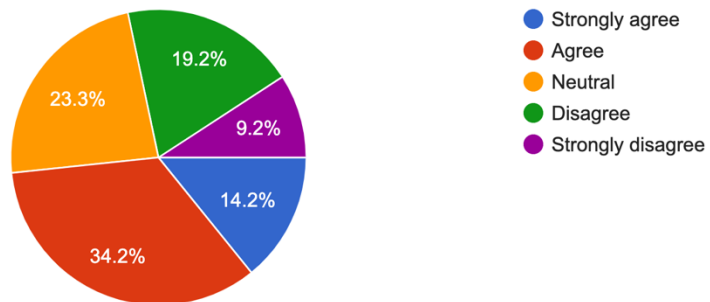
The scope of the 'Make in India' program is sufficient for India's solution to the unemployment problem.

120 responses



The scope of the 'Make in India' program is sufficient for India's workforce quality.

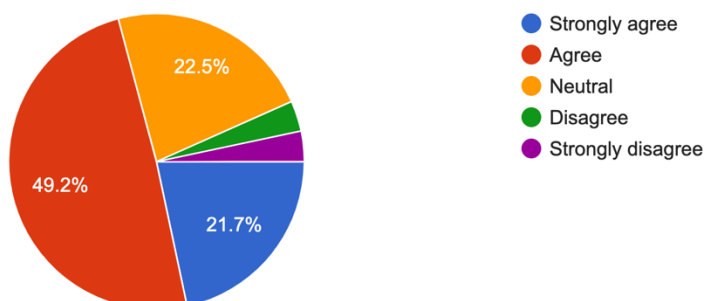
120 responses



Section-2

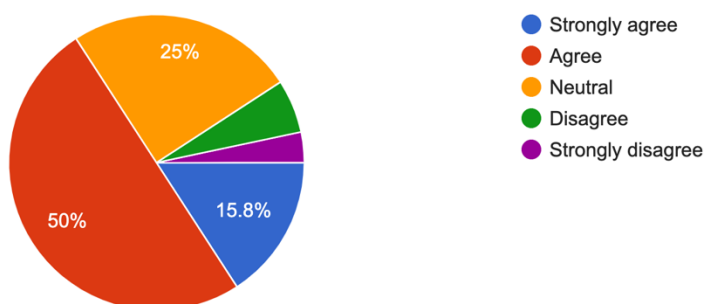
Foreign Direct Investment(FDI) expedients under the 'Make in India' program have a positive impact on India's development policies.

120 responses



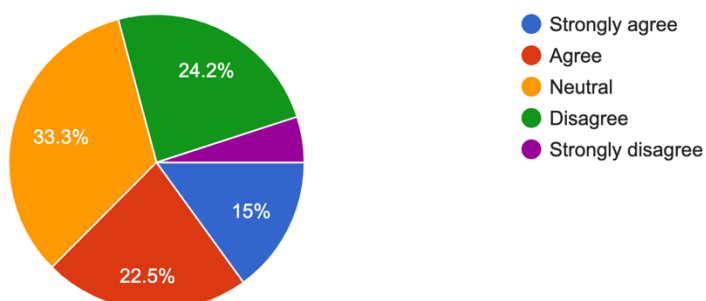
FDI programs under the 'Make in India' program have an impact on reducing unemployment and improving workforce quality in India.

120 responses

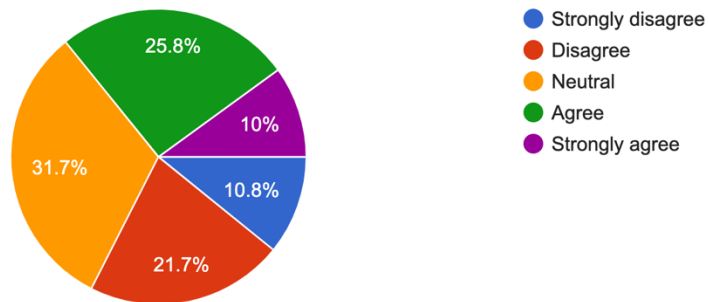


FDI policies impact negatively on the economic development of developing countries.

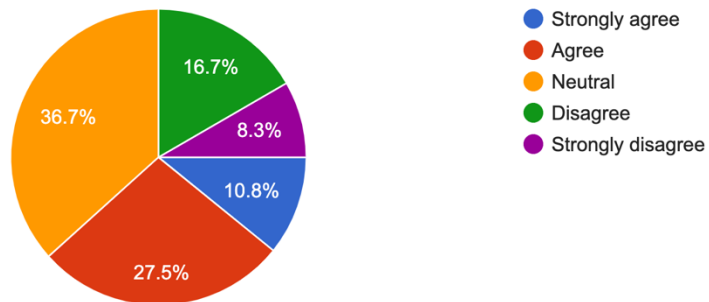
120 responses



The policies under the 'Make in India' program are inclusive of the whole country.
120 responses



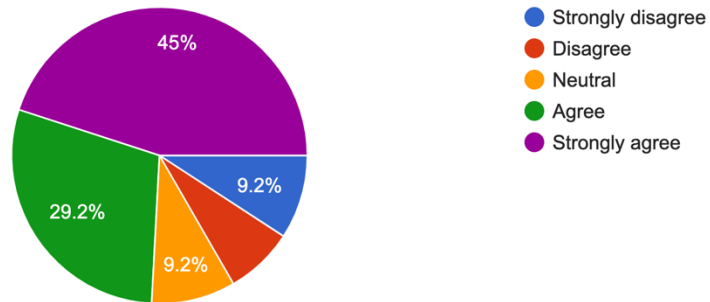
Policies under the 'Make in India' program are an egalitarian program for all companies, individuals, and institutions.
120 responses



Section-3

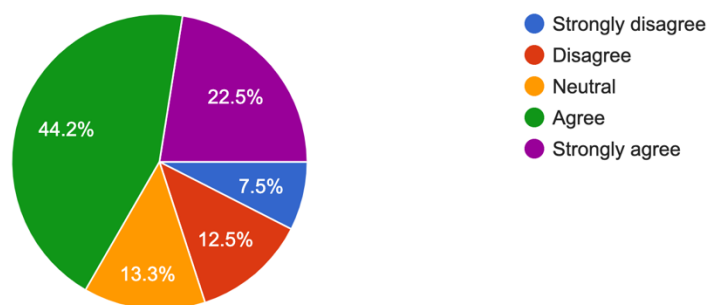
The recent COVID 19 crisis has negatively affected the Indian economy.

120 responses



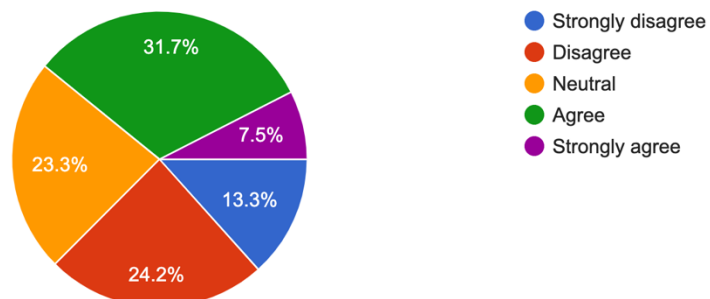
The period after COVID-19 will have more effective economic effects on India.

120 responses



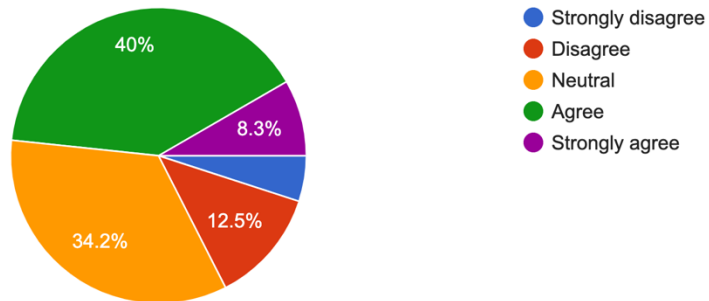
The new education policies and missions implemented in the Covid-19 period are sufficient for digitalization in education.

120 responses



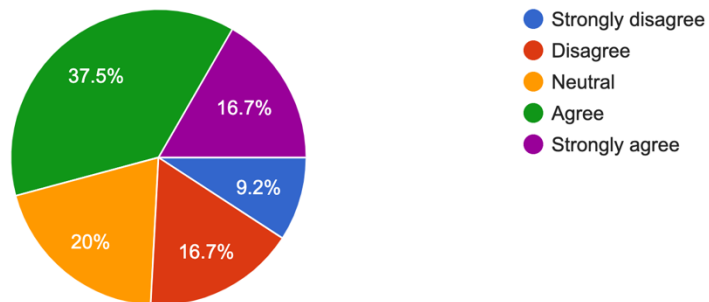
The new missions announced under the New India Samachar(NIS) and the New Education Policy(NEP) mission will positively affect the impact of sustainable development.

120 responses



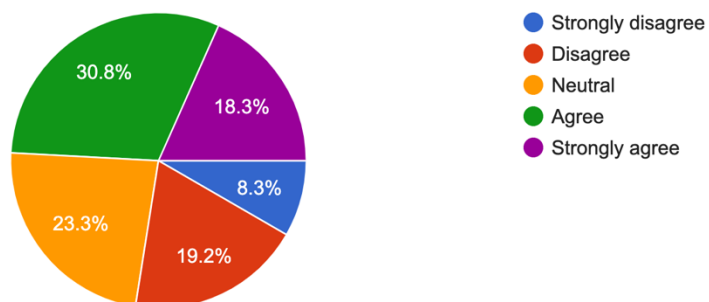
Border conflicts with China are damaging the Indian economy.

120 responses



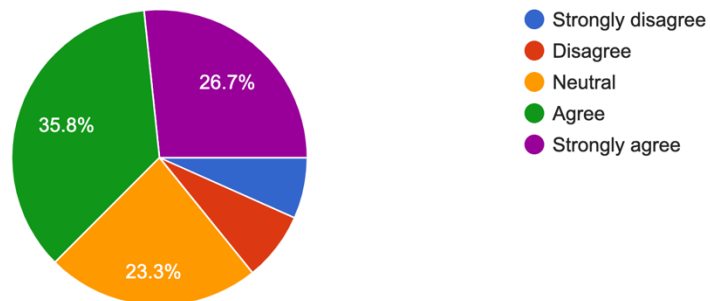
Boycotts on Chinese products have a negative impact on India's economic investments from China.

120 responses



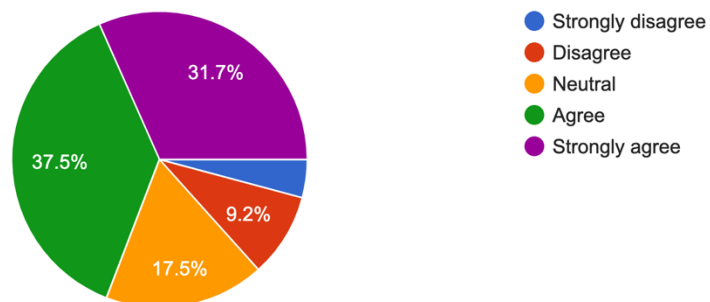
The effect of political, economic, and cultural relations with other countries cannot be denied for a sustainable economy.

120 responses



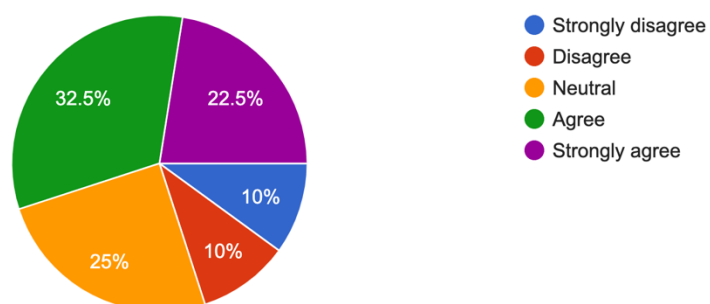
Political stability in India has a positive impact on the country's economic policies.

120 responses



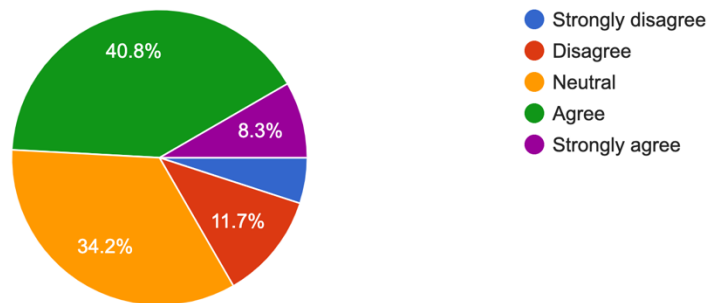
Some of the targets of 'Make in India' Program are far from reality.

120 responses



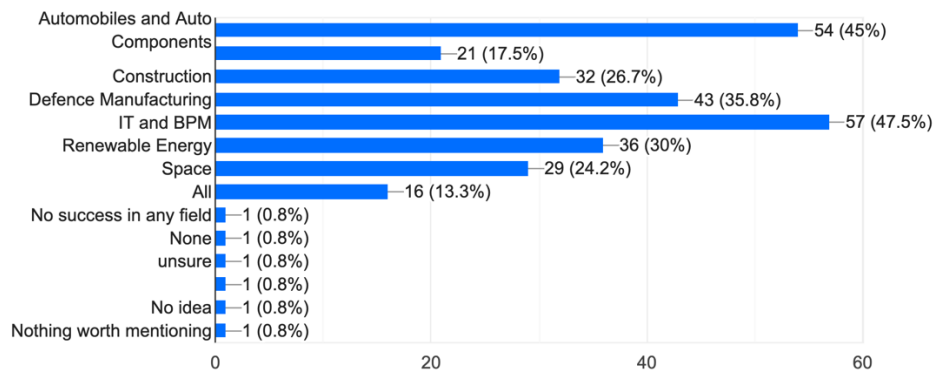
Arrangements to be made in the future under the "Make in India" program will be able to complement existing economic plans and missions.

120 responses



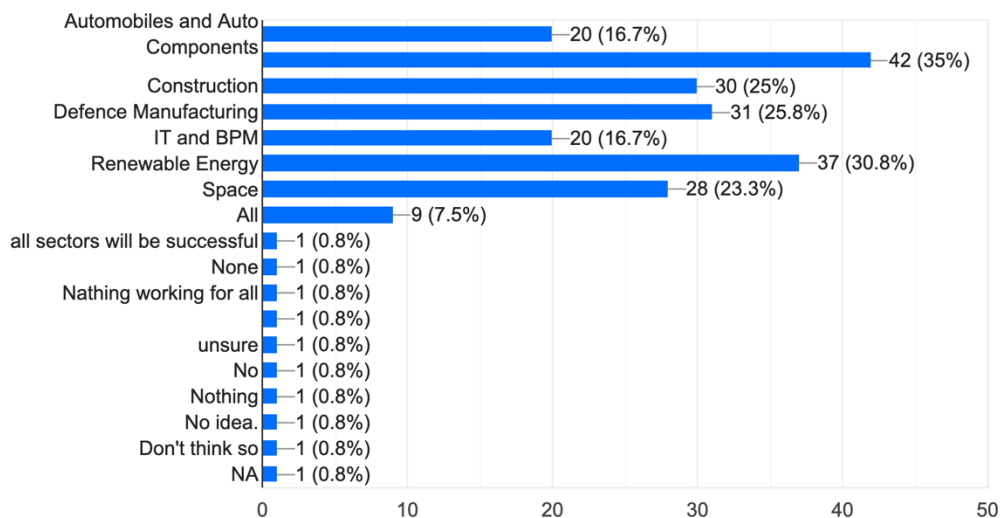
The projects and missions within the scope of the 'Make in India' program have achieved success in the following sectors:

120 responses



Projects and missions under the 'Make in India' program have not been very successful in the following sectors:

120 responses



Appendix-2: Questionnaire Outputs Comments

The research was carried out in scanning and relational scanning model as a design. In the study, n = 120 participants of the Make in India program were reached with a five-point Likert style questionnaire. The questionnaire was prepared with 27 closed-ended questions and 4 open-ended questions. The data in the questionnaire was loaded into the SPSS 25 program. Descriptive and inferential statistical analyses were made for the solution of the data.

A large number of data obtained are summarized with descriptive statistics. It was tried to make predictions about the universe with inferential statistics. The relationship between two or more variables that change together is examined by correlation.

The direction of the relationship, i.e., whether it is in the opposite or right direction, and the strength of the relationship is determined by a coefficient called the correlation coefficient. While the correlation coefficient shows the direction and strength of the relationship between variables, it does not give information about the mathematical structure of the relationship between variables.

Regression analysis is the most common method used to model the relationship between two or more variables in inferential statistics. The relationship between variables in regression analysis is explained with a mathematical model. It is called univariate regression analysis if analysis is performed using a single variable to model the output, and multivariate regression analysis if more than one variable is used. T-test is used to compare two groups and F tests are used to compare more than two groups.

Table 1. Descriptive Statistical Analysis Results Regarding the Questionnaire

	N	Minimum	Maximum	Mean	Std. Deviation
Sustainable Development Policy	120	1,00	5,00	3,49	0,89
Foreign Direct Investment	120	1,00	5,00	3,44	0,77
China's Development Policy	120	1,00	5,00	3,42	0,75

When the descriptive statistical analysis results of the survey were examined, it was found that the opinions of the participants regarding the Make in India program were "3.49 ± 0.89" in the Sustainable Development Policies; 3,44±0,77 in the Foreign Direct Investment; 3,42±0,75 in the China's Development Policies measurement data. These findings show that the participants have a "agree" positive attitude towards the Make in India program. However, the results of inferential statistical analysis conducted for the detailed examination of these findings are given below.

Findings regarding *“The Make in India Initiative program will help India’s sustainable economic development; increase the workforce quality, and amount; reduce the negative effects of anti-competitive practices in India.”* hypothesis are given below.

Table 2. Inferential Statistical Analysis Results (Model 1)

Model 1	β	Std. Error	t	p	Tolerance	VIF
(Constant)	,006	,031	,195	,846	-	-
Foreign Direct Investment	,729	,125	,854	,000	,205	4,873
China's Development Policy	,264	,127	,074	,040	,205	4,873

Notes:

- (i) Regression model significance test [F (2-117) = 146,723 p = .000] and Determination coefficient R² = .715.
- (ii) Model autocorrelation D.W = 1,777.
- (iii) The relationship significance level was taken as 0.05.

When the model established for the H1 hypothesis is examined in Table 2; The regression significance test of the model was found to be significant [F (2-117) = 146.723 p = . Since the model is meaningful, model assumptions have been passed. Autocorrelation DW = 1.777 The tolerance values were found to be above 20% and VIF values <5. Since these findings provided the assumptions of the model, the interpretation of the coefficients was started. Accordingly, Make in India program will help India's sustainable economic development; Foreign direct investment, which will increase the quality and quantity of labour and reduce the negative effects of anti-

competitive practices in India, will have a significant effect of 72.9% on sustainable development policies [$\beta = .729$ $p = .000$]. On the other hand, India's foreign policies will have a significant effect of 26.4% on sustainable development policies [$\beta = .264$ $p = .040$]. With the implementation of this program, the quality and quantity of workforce will increase, and the negative effects of anti-competitive practices in India will be reduced. When the determination coefficient ($R^2 = .715$) is interpreted for the model, it shows that 71.5% of Make in India program can be explained by foreign investments and foreign policy. For this reason, the H1 hypothesis of the study was accepted at the 0.05 significance level at the ninety-five percent confidence interval, and the H0 hypothesis was rejected.

H₁: The Make in India Initiative program will help India's sustainable economic development; increase the workforce quality, and amount; reduce the negative effects of anti-competitive practices in India.

Findings regarding the “If India maintains its current level of economic growth, the country will need larger sustainable development policies.” hypothesis are given below.

Table 3. Inferential Statistical Analysis Results (Model 2)

Model 2	β	Std. Error	t	p	Tolerance	VIF
(Constant)	,036	,020	1,788	,076	-	-
Sustainable Development Policies	,311	,053	5,854	,000	,369	2,713
China's Development Policy	,623	,062	10,043	,000	,369	2,713

Notes:

- (i) Regression model significance test [$F(2-117) = 310,072$ $p = .000$] and Determination coefficient $R^2 = .841$.
- (ii) Model autocorrelation D.W = 1,399.
- (iii) The relationship significance level was taken as 0.05.

When the model established for the “If India maintains its current level of economic growth, the country will need larger sustainable development policies.” hypothesis is examined in Table 3; The regression significance test of the model was found to be significant [$F(2-117) = 310,072$ $p = .000$]. Since the model is meaningful, model

assumptions have been passed. Autocorrelation DW = 1,399 The tolerance values were found above 36% and VIF values <5. Since these findings provided the assumptions of the model, the interpretation of the coefficients was started. Accordingly, if India maintains its current level of economic growth, sustainable development policies have a 31.1% effect on the country's need for greater sustainable development policies [$\beta =$. On the other hand, India's foreign policies have a significant effect of 62.3% [$\beta =$, 623 p =, 000]. If India maintains its current level of economic growth with the implementation of this program, the country will need greater sustainable development policies. When the determination coefficient ($R^2 =$, 841) is interpreted for the model, it has shown that 84.1% of the Make in India program can be explained by the sustainable development program and India's foreign policy. Therefore, the H2 hypothesis of the study was accepted at the 0.05 significance level at the ninety-five percent confidence interval, and the Hnull hypothesis was rejected.

H₂: “If India maintains its current level of economic growth, the country will need larger sustainable development policies.”

Findings regarding the “A thorough analysis of the Make in India Program will provide an understanding of the areas in which sustainable economic policies are planned and the objectives of sustainable economic policies.” hypothesis are given below.

Table 4. Inferential Statistical Analysis Results (Model 3)

Model 3	β	Std. Error	t	p	Tolerance	VIF
(Constant)	,061	,022	2,826	,006	-	-
Sustainable Development Policies	,134	,065	2,074	,040	,296	3,384
Foreign Direct Investment	,743	0,074	10,043	,000	,296	3,384

Notes:

- (i) Regression model significance test [F (2-117) = 237,062 p = .000] and Determination coefficient $R^2 =$, 802.
- (ii) Model autocorrelation D.W = 1,357.
- (iii) The relationship significance level was taken as 0.05.

When the model established for the “A thorough analysis of the Make in India Program will provide an understanding of the areas in which sustainable economic policies are planned and the objectives of sustainable economic policies.” hypothesis is examined in Table 4; The regression significance test of the model was found to be significant [$F(2-117) = 237,062$ $p = .000$]. Since the model is meaningful, model assumptions have been passed. Autocorrelation $DW = 1.357$ The tolerance values were found to be above 29% and VIF values <5 . Since these findings provided the assumptions of the model, the interpretation of the coefficients was started. Accordingly, a comprehensive analysis of the Make in India Program, the understanding of the areas where sustainable economic policies are planned and the goals of sustainable economic policies in India have a 13.4% effect of sustainable development policies [$\beta = .134$ $p = .000$]. On the other hand, foreign direct investment has a significant effect of 74.3% [$\beta = .743$ $p = .000$]. With the implementation of this program, it will ensure that the areas where sustainable economic policies in India are planned and the goals of sustainable economic policies are understood. When the determination coefficient ($R^2 = .802$) is interpreted for the model, it shows that 80.2% of the Make in India program can be explained by the sustainable development program and foreign direct investment. For this reason, the H_3 hypothesis of the study was accepted at the 0.05 significance level at a 90 percent confidence interval, and the H_{null} hypothesis was rejected.

H_3 : “A thorough analysis of the Make in India Program will provide an understanding of the areas in which sustainable economic policies are planned and the objectives of sustainable economic policies.”

Findings regarding the “Examining the development policies of China will contribute to the Make in India Initiative program.” hypothesis are given below.

Table 5. Inferential Statistical Analysis Results (Model 4)

		(Y ₁)	(Y ₂)	(Y ₃)
Sustainable Development Policies	Pearson Correlation	1		
Foreign Direct Investment	Pearson Correlation	,839**	1	
China Development Policies	Pearson Correlation	,795**	,892**	1

Note:

- (i) The relationship significance level was taken as 0.01.

When the model established for the “Examining the development policies of China will contribute to the Make in India Initiative program.” hypothesis is examined in Table 5, it is seen that the distribution of the data is close to normal. Since these findings provided the assumptions of the model, the interpretation of the correlation coefficients was started. Accordingly, China's development policies should be examined with the Make in India program. Because there is a positive and highly significant relationship between Sustainable Development Policies and Foreign Direct Investments [$r = ,839$ $p = ,000$]. On the other hand, there is a positive and highly significant relationship between the Sustainable Development Policies and India's foreign policy [$r = ,795$ $p = ,000$]. There is a positive and highly significant relationship between Foreign Direct Investments and India's Foreign Policy [$r = ,892$ $p = ,000$]. The significant relationship in the factors of this program will contribute to the Make in India program, which will examine China's development policies under the headings of these factors. For this reason, the H4 hypothesis of the study was accepted at the 0.05 significance level at the ninety-five percent confidence interval and the Hnull hypothesis was rejected.

H4: “Examining the development policies of China will contribute to the Make in India Initiative program.”

The socio-demographic characteristics (gender, occupation and education status) of the participants were analysed in detail in the questionnaire for the Make in India program. Analysis results are given in Table 6.

Table 6. Inferential Statistics Difference Tests Analysis Results

Gender		N	Mean	Std. Deviation	t
Sustainable Development Policies	Female	41	3,43	0,86	,525
	Male	79	3,52	0,92	
Foreign Direct Investment	Female	41	3,37	0,73	,774
	Male	79	3,48	0,79	
China Development Policies	Female	41	3,39	0,70	,317
	Male	79	3,43	0,78	
Occupation		N	Mean	Std. Deviation	F
	Academia	43	3,30	0,82	2,647

Sustainable Development Policies	Business	30	3,42	1,07	
	NGO and others	47	3,72	0,81	
Foreign Direct Investment	Academia	43	3,27	0,67	3,492*
	Business	30	3,34	0,97	
	NGO and others	47	3,67	0,66	
China Development Policies	Academia	43	3,35	0,69	2,382
	Business	30	3,24	0,91	
	NGO and others	47	3,59	0,67	
Education Degree		N	Mean	Std. Deviation	F
Sustainable Development Policies	Bachelor Degree	32	3,44	0,91	1,886
	Master Degree	52	3,66	0,92	
	PhD Degree	36	3,29	0,81	
Foreign Direct Investment	Bachelor Degree	32	3,38	0,80	1,961
	Master Degree	52	3,60	0,79	
	PhD Degree	36	3,28	0,69	
China Development Policies	Bachelor Degree	32	3,32	0,78	1,782
	Master Degree	52	3,56	0,76	
	PhD Degree	36	3,29	0,69	

Gender, occupational and educational degrees of the participants of the Make in India program were compared with difference tests. In these comparisons, t-test and one-way analysis of variance were performed for independent groups. There is no significant difference according to gender variable in the questionnaire about Make in India program. In other words, the views of men and women on Make in India program are similar. On the other hand, there is no significant difference according to the educational degree variable. In other words, the views of the bachelor's degree, master's degree, PhD degree groups regarding Make in India program are close to each other. According to the occupation variable, there is a significant difference in the foreign direct investments factor [$F = 3,492$ $p < 0,05$]. Multiple comparison Tukey HSD test was performed to determine among which groups the significant difference was caused. According to the test results, it was found that NGO and other professional groups have a more positive view of Make in India program.

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