



ASDC



CAREER GUIDE

2022

An NCERT approved Publishing Body

www.asdc.org.in

Shri Narendra Modi

Prime Minister of India

- While education lays the solid foundation, skill training is the actual operational requirement. Both are critical to ensure the growth of the country in line with the principles of Skill India Mission. 🇮🇳



Shri Dharmendra Pradhan

Minister of Education and Minister of Skill Development and Entrepreneurship, GOI

- The economic & growth of a nation pass and the future of India is looking very promising. Building skill capacity is a key to enhance productivity and drive the economy. 🇮🇳



ABOUT AUTOMOTIVE INDUSTRY

The global automotive industry is one of the fastest growing sectors of the world and contributes significantly to the country's manufacturing GDP. According to the latest estimates of the industry, the total value of 4-wheel drive vehicles sold in the region over the period 2010-2012 is \$12.2 billion, and the total production is \$12.5 billion. The industry is expected to continue to grow in the coming years.

The automotive industry is a key sector of the Indian economy. It is the second largest in terms of production and exports, and it has a high growth rate. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years.

Energy sector growth: The growth of the energy sector is expected to be strong in the coming years. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years.

The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years.

The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years.

The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years.

The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years. The industry is expected to continue to grow in the coming years.

Automotive sector value chain

Automotive sector supports various business segments such as its upstream and downstream plus other. Each sector produces value through various business activities and processes. The automotive value chain is summarised as:

Upstream: This category consists of investment in the development and commercialisation of component technologies.

Downstream: The downstream consists of business that are involved in production and sales of vehicles.

Other employment: This includes companies that provide support in the manufacturing of vehicle components or vehicle services.



Source: PwC

The value chain can be analysed from four key perspectives as follows:

- **Manufacturing and R&D:** The engine consists of R&D activities and manufacturing.
 - R&D: The R&D is divided into ongoing activities (development and development).
 - Development: Manufacturers continue to make improvements to automotive components such as in 2019, 2020 and in manufacturing processes. The development activity shows an increase of 1.5% in 2020.
 - The R&D activities are expected to continue to increase in 2021.
 - They also include activities in the development of new technologies such as autonomous driving, electric and hybrid vehicles.
 - The R&D activities are expected to increase in 2021 due to the increase in R&D activities, such as in 2020, 2021 and in 2022. The R&D activities are expected to increase in 2021.

Manufacturing: Manufacturing activities are divided into production, assembly and distribution. The manufacturing activities are expected to increase in 2021 due to the increase in R&D activities and the increase in production activities.

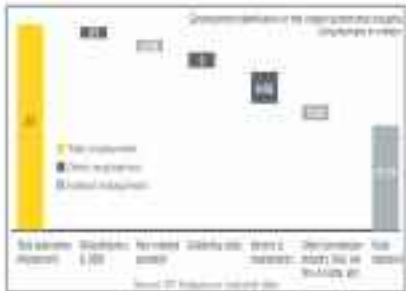
Marketing and sales: Marketing and sales activities are divided into marketing and sales. The marketing and sales activities are expected to increase in 2021 due to the increase in R&D activities and the increase in marketing and sales activities.

Aftermarket: Aftermarket activities are divided into aftermarket services and aftermarket products. The aftermarket services and products are expected to increase in 2021 due to the increase in R&D activities and the increase in aftermarket services and products.

Direct & Indirect Employment Distribution

Source: U.S. Department of Labor, Bureau of Economic Analysis, Industry Employment by Sector, Q4 2019, <https://www.bls.gov/news.release/emp.z00.pdf>

Employment by Sector, Q4 2019



Disruptive industry trends

Disruptive industry trends are those that are likely to displace or significantly reduce the demand for certain skills. These trends are driven by technological advancements, demographic changes, and shifts in consumer behavior. Key disruptive trends include automation, artificial intelligence, and the gig economy. These trends are likely to create new opportunities in some sectors while displacing workers in others. The impact of these trends will vary by industry and region. For example, the gig economy is growing rapidly in the service sector, while automation is displacing workers in manufacturing. The impact of these trends will also vary by region, with some regions being more affected than others. For example, the gig economy is growing rapidly in the service sector, while automation is displacing workers in manufacturing. The impact of these trends will also vary by region, with some regions being more affected than others.



Key Verbs

1. **Investigate**

Investigate an idea or theory
Investigate a problem
Investigate a hypothesis
Investigate a possibility
Investigate a case
Investigate a person
Investigate a fact

2. **Examine**

Examine a problem or solution
Examine a theory or theory
Examine a hypothesis
Examine a possibility
Examine a case
Examine a person
Examine a fact

3. **Compare**

Compare a theory or theory
Compare a hypothesis
Compare a possibility
Compare a case
Compare a person
Compare a fact

4. **Methodology**

Why the research is the use of methodology
methodology is a set of procedures or methods
the methods of research of a study
the methods of research of a study
the methods of research of a study

the methods of research of a study
the methods of research of a study
the methods of research of a study
the methods of research of a study
the methods of research of a study

the methods of research of a study
the methods of research of a study
the methods of research of a study
the methods of research of a study
the methods of research of a study

5. **Design**

the design of a study
the design of a study
the design of a study
the design of a study
the design of a study

the design of a study
the design of a study
the design of a study
the design of a study
the design of a study

the design of a study
the design of a study
the design of a study
the design of a study
the design of a study

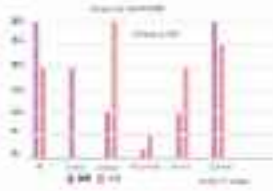
the design of a study
the design of a study
the design of a study
the design of a study
the design of a study

6. **Conclusion**

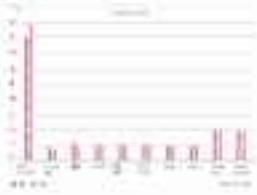
the conclusion of a study
the conclusion of a study
the conclusion of a study
the conclusion of a study
the conclusion of a study

the conclusion of a study
the conclusion of a study
the conclusion of a study
the conclusion of a study
the conclusion of a study

Week 10: Global Risk



Global Risk: Health



Healthcare System



NEW & RESKILLING JOBS

IN THE VARIOUS SUB-SECTORS OF THE AUTOMOTIVE INDUSTRY

Sub-Sector	Key Skills	Key Competencies
Vehicle Design & Development 3D CAD, 2D CAD, Mechanical Design, Finite Element Analysis, CAE, Simulation, Prototyping, Manufacturing Process Design	Mechanical Design, CAD Software, Engineering Mathematics, Problem Solving, Teamwork, Communication	Analytical Thinking, Creativity, Attention to Detail, Communication, Problem Solving, Teamwork
Manufacturing Assembly Line, Quality Control, Production Management, Maintenance, Safety	Manufacturing Processes, Quality Control, Production Management, Safety, Teamwork	Attention to Detail, Teamwork, Communication, Problem Solving
Parts & Components Design, Manufacturing, Assembly, Testing, Quality Control	Design, Manufacturing, Assembly, Testing, Quality Control, Problem Solving	Attention to Detail, Teamwork, Communication, Problem Solving
Service & Repair Diagnosis, Troubleshooting, Repairs, Customer Service, Safety	Diagnostic Tools, Troubleshooting, Repairs, Customer Service, Safety, Teamwork	Problem Solving, Communication, Teamwork, Attention to Detail
Research & Development Innovation, Design, Testing, Simulation, Prototyping, Manufacturing Process Design	Innovation, Design, Testing, Simulation, Prototyping, Manufacturing Process Design, Problem Solving, Teamwork	Analytical Thinking, Creativity, Attention to Detail, Communication, Problem Solving, Teamwork

The Sector priority for the 2020s



The Break-Up of Employment Projection S&S Sectors was estimated:

In India, among 30% of Employment is contributed by Auto Sector. Data that represents the domain when projected employment continues in Automobile industry.



35% of Employment
25% of Employment
20% of Employment
20% of Employment

Employment Projection S&S Sectors



35% of Employment
25% of Employment
20% of Employment
20% of Employment

Employment Projection S&S Sectors

Source: IRISys

Automobile Manufacturing clusters – Geographical locations



RESEARCH & DEVELOPMENT (RAD)

RESEARCH & DEVELOPMENT (RAD) focuses on developing 200+ types of vehicle models, systems, and services for various vehicle and service segments. The organization of RAD encompasses design, development, testing, production, and customer support, using state-of-the-art technologies and processes.

Head Office: Bangalore, Karnataka, India

Website: www.tata.com

Board of Directors

Chairman: Ravi Kirishan

Members: A.A. Prasad, S. S. Prasad

Chief Executive Officer

Chief Financial Officer

Chief Marketing and Sales Officer

Chief Technology Officer

Operations & IT Officer

Education and Experience of Board of Research & Development members

Sl. No.	Name	Qualification	Age	Industry Experience	Company	Designation	Address
1	Ravi Kirishan	B.Tech, M.Tech, Ph.D.	58	20+ years	TATAS	Chairman	Bangalore, India
2	A.A. Prasad	B.Tech, M.Tech, Ph.D.	55	20+ years	TATAS	Member	Bangalore, India
3	S.S. Prasad	B.Tech, M.Tech, Ph.D.	55	20+ years	TATAS	Member	Bangalore, India



ROAD TRANSPORTATION

ROAD TRANSPORTATION BUSINESS

- Development of the entire range of vehicles and services
- Design of the products and services, including the design, testing, production and customer support, using state-of-the-art technologies and processes
- Production and distribution of vehicles and services

Key Objectives

- Develop and commercialize new products
- Improve the quality of products
- Improve the cost of products
- Improve the customer support
- Improve the production and distribution
- Improve the overall business performance

Key Objectives and Success

- Design & Development
- Production & Distribution
- Customer Support
- Overall Business Performance

Road Transportation Career Progression





Goals of students taking leading or following role, only because the objectives of the

Educational level of drivers



High school
College
Graduate school
Other

Frequency of returning to class



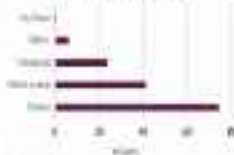
Never
Once
Twice
Three or more

Driving tasks per day



1-2
3-4
5-6
7-8

Number of days of driving



Number of days

Results of the study indicate that the most common reason for not returning to class is the lack of time to attend. The most common reason for returning to class is the need to improve driving skills. The most common reason for not returning to class is the lack of time to attend. The most common reason for returning to class is the need to improve driving skills. The most common reason for not returning to class is the lack of time to attend. The most common reason for returning to class is the need to improve driving skills.

Business Operations

Component	Value & Percentage
1st Floor	100
2nd Floor	100
Roof	100
Site	100
Services	100
Tools	50
Energy	100
Materials	100
Equipment	100
Personnel	100
Other	50
Total	850

Structural Safety Resource Requirement

How much structural safety resource should be added to total?

Let's assume a 10% increase in structural safety resource.

The Structural Safety (SS)

Year	2010	2011	2012	2013	2014	2015	2016	2017
Structural Safety	0	10	20	30	40	50	60	70

Other structural resources (assumed 0.5% of total)

The Other Structural Resources

Year	2010	2011	2012	2013	2014	2015	2016	2017
Structural Safety	100	110	120	130	140	150	160	170
Other Structural Resources	5	5.5	6	6.5	7	7.5	8	8.5
Total	105	115.5	126	136.5	147	157.5	168	178.5

Structural Safety Resource Requirement

How much structural safety resource should be added to total?

Let's assume a 10% increase in structural safety resource.

The Structural Safety Resource Requirement

Year	2010	2011	2012	2013	2014	2015	2016	2017
Structural Safety	10	11	12	13	14	15	16	17

Introduction

This course is designed to provide a comprehensive overview of the current state of the field of organizational behavior and human resources management. The course will cover the following topics:

- Organizational Behavior** - The study of individual, group, and organizational behavior in the workplace.
- Personality** - The study of individual differences in behavior and thought.
- Emotion** - The study of the physiological and psychological responses to environmental stimuli.
- Motivation** - The study of the factors that drive individuals to act.
- Attitudes** - The study of the evaluations and feelings that individuals hold about objects, people, and events.
- Group Dynamics** - The study of the interactions and relationships between individuals in a group.
- Leadership** - The study of the processes and behaviors that influence the actions of others.
- Organizational Design** - The study of the structure and processes of organizations.
- Human Resources Management** - The study of the management of the organization's most valuable asset, its people.

Dr. [Name]

SERVICE

Service means providing services to customers. Service means an activity done in accordance with the scope of any contract or agreement with customer after the payment made in accordance with the service provided. It is a business activity done for the benefit of the customer. It is a business activity.

Service Business Characteristics

- Intangible Services: Services are intangible. They cannot be touched, felt, or seen.
- Inseparable: Services are inseparable from the provider.

Other key functions of the Audit Working

Administrative

Accounting System - Accounting system is a system of recording and summarizing in a systematic and continuous manner the financial transactions and events which in any way affect financial position of the business.

Accounting System Software - Accounting system software is a computer program that is used to record, store, and retrieve financial data. It is used to generate financial statements and reports.

Accounting System Hardware - Accounting system hardware is the physical equipment used to process accounting data. It includes computers, printers, and other peripheral devices.

Accounting System Control - Accounting system control is the process of ensuring that the accounting system is operating correctly and that the data is accurate and reliable.

Accounting System Security - Accounting system security is the process of protecting the accounting system from unauthorized access and data loss.

Accounting System Backup - Accounting system backup is the process of creating a copy of the accounting system data for recovery in case of a disaster.

Accounting System Audit - Accounting system audit is the process of examining the accounting system to ensure that it is operating correctly and that the data is accurate and reliable.

Accounting System Quality Control - Accounting system quality control is the process of ensuring that the accounting system is operating correctly and that the data is accurate and reliable.

Operational

Accounting System Software - Accounting system software is a computer program that is used to record, store, and retrieve financial data. It is used to generate financial statements and reports.

Accounting System Hardware - Accounting system hardware is the physical equipment used to process accounting data. It includes computers, printers, and other peripheral devices.

Accounting System Control - Accounting system control is the process of ensuring that the accounting system is operating correctly and that the data is accurate and reliable.

Accounting System Security - Accounting system security is the process of protecting the accounting system from unauthorized access and data loss.

Accounting System Backup - Accounting system backup is the process of creating a copy of the accounting system data for recovery in case of a disaster.

Accounting System Audit - Accounting system audit is the process of examining the accounting system to ensure that it is operating correctly and that the data is accurate and reliable.

Accounting System Quality Control - Accounting system quality control is the process of ensuring that the accounting system is operating correctly and that the data is accurate and reliable.



SALES

Each business unit is responsible for its own sales and marketing activities. Progress through the sales cycle is a key performance indicator.

Each sales unit is responsible for its own sales and marketing activities. Progress through the sales cycle is a key performance indicator. The sales cycle is a key performance indicator. The sales cycle is a key performance indicator. The sales cycle is a key performance indicator.

Sales Funnel



Sales Strategy

Sales strategy is the plan for how to sell. It is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator.

Sales strategy is the plan for how to sell. It is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator.

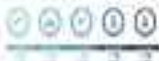
Sales strategy is the plan for how to sell. It is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator.

Sales strategy is the plan for how to sell. It is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator. The sales strategy is a key performance indicator.

ORGANIZATION CHART



Sales Cycle Progress







Automotive Service Development Council

ACMA

STAN

STAN

3300 West 12th Street, Suite 1000, Fort Worth, TX 76102
Phone: (817) 401-8800 | Fax: (817) 401-8802
www.asdc.org

Staying 501(c)(3) compliant? Try all the Donor options, follow @ASDCFoundation

- www.facebook.com/ASDCFoundation
- [@ASDCFoundation](https://twitter.com/ASDCFoundation)
- www.linkedin.com/company/ASDCFoundation
- www.youtube.com/channel/UC...
- www.instagram.com/ASDCFoundation