

Market Assessment & Consulting

Empowering Decisions, Driving Success: Your Partner in Market Insights & Business Growth

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DART

Industry Advisory Services Business Plan & Project Report Market Research Technology Research Primary Market Research Data Analysis Industry Expertise

VISION

To secure prominent position as a DART provider of Market Assessment & Business Advisory Services globally!

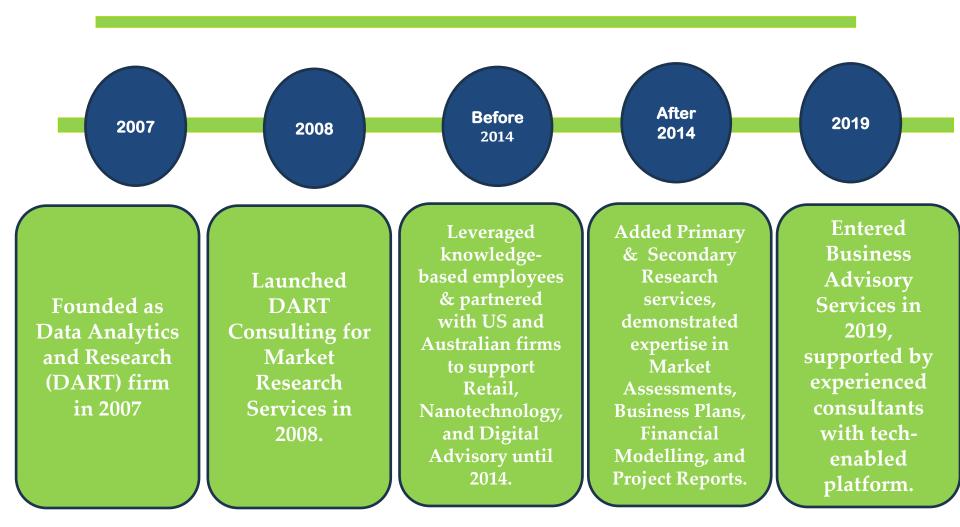
Business Plan

Market Assessment

Advisory Services



Who We Are? DART



PRIME SERVICES

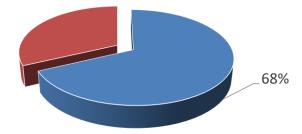


Clientele across UK, USA, Middle East, and Australia. Delivered 14,000+ projects across various industries and countries in 16 years

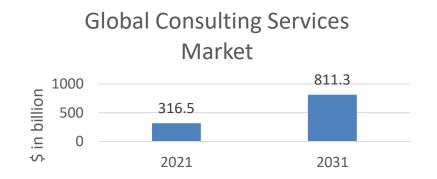
Why Industry Consulting?

The global management consulting services market is projected to reach \$811.3 billion by 2031, growing at a CAGR of 10.2% from 2022 to 2031.

SMEs need Consulting Services



Potential Target Segments Rising Awareness of Consulting Need Among Developing and Under-Developed Nations.



68% of the SMEs face growth and demand challenges

- Africa Consulting Services Projected to Grow at 3-4% per year
- Morocco, Nigeria and South Africa as Top 3 Potential Market
- Strategy, Operations and human Capitals are Key Consulting Segments

Industry Advisory Service Process

 ✓ Partnering with seasoned Independent Consultants across various industry sectors.

✓ Unique Consulting Model ->

Combination of Independent Consultants + Research Analysts = Superior & Cost-Effective Consulting.

Business Advisory Services for All @Affordable Rate

 Consulting services designed to enhance your business through distinctive strategies, appropriate organizational frameworks, and tailored plans essential for growth



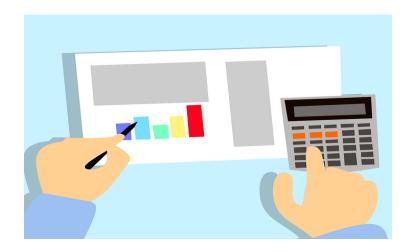


Industry Consulting Services

Pricing Strategy Consulting

Pricing Strategy Solutions for multiple industries including Engineering, Healthcare and Equipment industry in defining appropriate pricing





FMCG Market Service

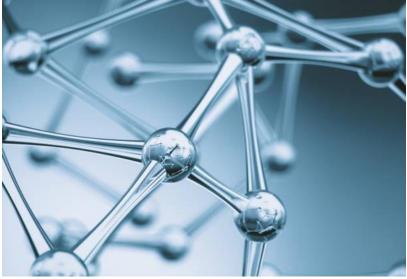
FMCG Consultants will study the overall market, and provide marketing/distribution solutions within the FMCG segment.

Industry Consulting Services

Nanotechnology Consulting

Nanotechnology accelerated the recent technological developments – ranging from the monolithic curved panel TV to artificial metal/ceramic hip implant. Thus, the Emerging Technologies bringing competitive challenges to existing providers, and enhance user experience.





Beverage Consulting

Beverage Consulting includes services for Formulation, Raw Material Sourcing, Recipe Formulation, Testing the Product, Commercial Manufacturing, Sourcing of Beverage Machinery, Project Plan Preparation both alcoholic and non- alcoholic beverages

Industry Consulting Services

Human Resource Consulting

HR Consulting for Organization transformation, Performance management, Employee Engagement and Manpower Planning.



HUMQA Desources

Strategy Consulting

Strategy in Business is all about earning superior profits and beating the market competition. Right Business Strategy provides Right direction and without robust strategy, backed up with comprehensive market data in place, businesses are bound to fail.

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Business Plan & Detailed Project Report How We Do It?

- Discussion with Client
- Preparing Synopsis/ Approach Note
- Finalize Business Model
- Agree on Business and Revenue Model
- Market Analysis and Competitor Analysis
- Financial Plan 3- 5 years
- Operations, Regulatory and Promotional Plan
- Final Report
- Presentation Slides/ Pitch Deck



Project Portfolio: Business Plan – Food Delivery Platform in India (2023)

The backdrop: Amid the growing popularity of food delivery platform in India, an entrepreneur sensed significant disparity between consumer expectations and the services being offered. As a result, he wants to conduct a comprehensive survey involving potential customers, delivery partners, and restaurant partners to gain insights into the current market demands and potential opportunities.

The challenges: The food e-commerce sector has experienced remarkable expansion in recent years, primarily fueled by evolving consumer tastes and the swift advancement of digital technologies. A harmonious relationship exists between food ordering and delivery services, as such platforms facilitate the effective distribution of packages through local delivery partners, while also guaranteeing prompt food delivery. This synergy ultimately enhances the overall experience for consumers, making it more convenient and satisfying.

Outcome: Our team has meticulously crafted a well-researched business model that combines food ordering service with a door-to-door package delivery system. The envisioned platform seeks to address the issues faced by existing aggregator services, providing unique solutions that cater to the needs of all stakeholders, including customers, vendors, and delivery staff. This model was established through comprehensive primary and secondary research efforts. We have prepared an extensive plan to initiate the food delivery service swiftly, followed by the introduction of package delivery options.. It aspires to offer a cost-effective food aggregation solution while meeting the needs and expectations of all parties involved.

Project Portfolio: Detailed Project Report – CBG (Compressed Biogas) Production Plant in Haryana (2022)

The backdrop: As part of business expansion, a leading metal fabrication firm aims to investigate diversification by venturing into the green energy sector. Following the acquisition of necessary licenses, the entrepreneur sought our expertise to develop a comprehensive project report. The initiative involves using organic waste, including agricultural residues, cattle dung, sugarcane press mud, municipal solid waste, and comparable materials, as feedstock for power generation.

The challenges: The promoters wants to examine the multiple dimensions of the biogas industry in India. In their pursuit of investment within this sector, they seek to understand the fundamental trends that are driving the growth of the proposed project in the market, thereby assessing its feasibility. Additionally, they intend to evaluate the performance of existing units and the extent of government support available to bolster the venture, with a focus on identifying all potential institutional incentives that could be leveraged.

Outcome: Our team conducted an extensive examination of the present market landscape, identifying potential avenues for growth while performing a comprehensive analysis of prevailing market trends. We obtained quotations from prospective suppliers and developed a detailed financial model. This financial model effectively illustrated the potential profitability associated with different levels of investment. Strategies were formulated by benchmarking against existing comparable units to establish a competitive edge in the market. Additionally, our team investigated opportunities for enhancing revenue through improved utilization of by-products

Project Portfolio: Business Plan – Aerospace and Telecommunication Company (2021)

The backdrop: The entrepreneur wanted to set up telecommunications company in South East Asia. The plan was to offer wireless internet access via satellite and broadband applications. The aerospace division concentrates on cutting-edge technologies. With the implementation of new technology, the company plans to revolutionize existing communication systems. It is expected to better customer experience with high-speed, uninterrupted internet services in major cities and less-populated areas.

The challenges: The company wants to quickly establish and grow within the target market. Conversely, the management sought expert assistance to enhance the ideation process and strengthen the strategic framework necessary for project realization. Consequently, we were engaged to assess market opportunities and provide management with strategies for achieving early market success.

Methodologies : DART commenced its initiative by conducting a comprehensive market analysis, addressing regulatory challenges, and performing a competitive assessment to assist the organization in achieving its strategic objectives. The research encompassed a meticulously crafted roadmap designed to guide the company from its inception to a fully established entity. This strategic plan was divided into several key components, which included an overview of the company, a detailed examination of the business model, an analysis of the market landscape and strategic approach, as well as an evaluation of regulatory considerations and critical risk factors.

Project Portfolio: Business Plan – Aerospace and Telecommunication Company (2021 ...contd)

Outcome: In the business overview, DART Analysts went deep into the different technologies involved in the telecommunication segment. These technologies form the backbone of the company; and hence its deep analysis was essential. Also, our team prepared an overview of the pain points the customers face and the solutions the company will offer.

The market overview was studied at the Global level and works its way down to the each country level for each product from satellite to mobile data. The study helped the business in deciding if the expansion was feasible. Under the competitive analysis section, the names and contact information, USP's and distributional channels for the major companies at the National and International level are reported. The analysis of present companies and their operations will also help the firm implement efficient product delivery methods and find gaps in the existing structure that, if solved, would make the company more productive.



The Aero Space and Telecom company is extremely critical since it concerns national security. Therefore, it is a heavily regulated industry in most of the countries. The DART Analysts in the plan aided in this process by outlining all the regulations and licenses that were required in a linear fashion. Along with this, they provided a comprehensive summary of the different risk variables involved, which were classified as Industry Risk, Economic Risk, Political risk as well as operational risk.

Project Portfolio: Project Report – Mineral Water Bottling Plant – Government Institution, Karnataka (2020)

Government of Karnataka organization plans to enter into mineral water products segment by setting up a manufacturing plant in Karnataka. They approached DART to prepare a detailed project report to understand the market trend and project viability.

The Final Product: This report included a detailed analysis of mineral water bottling industry in India along with five years financial projections for the project feasibility. It also included in depth review of existing competitors at global and domestic level to understand the product segments, marketing activities in order to determine the Go-To Market Strategy for the company.

Further, five years operational plan has been prepared with organizational structure, inventory management strategy, manufacturing unit facility requirements and business milestones.

The Outcome: The report helped client to understand the viability of the project with the insights provided through market research and financial analysis.



Project Portfolio: Business Plan – Diagnostics and Clinical Lab India (2020)

The backdrop: A diagnostic and polyclinic center with a track record of delivering excellent healthcare services is intended to widen its network. The services included laboratory services and general physician consultations in pathology, radiology, cardiology, and neurology. The client approached DART and we prepared business plan that help them expand their operation PAN India.

The challenges: The promoters of the clinic wanted to broaden the boundaries of its Laboratories throughout India. The management recognized significant potential in addressing India & growing need for better healthcare facilities in Tier-1 and Tier-2 cities. However, the company was looking for the guidance from an advisory firm in order to get an in-depth understanding of the ideation and to adapt a right approach needed to realize the prospect. Consequently, the company engaged DART to develop a business plan to identify, define, and assess a business opportunity and examine its technical, economic, and financial feasibility.

Methodologies: Comprehensive Business Plan along with Strategy Consulting was agreed upon to realize its vision. The plan includes a detailed road map that will guide the business along its expansion journey. The study was divided into several sections: business model and overview, Market overview and strategy, operation plan, financial plan, and project viability.

Project Portfolio: Business Plan – Diagnostics And Clinical Lab India (2020 contd..)

The Outcome: DART analysts proposed a hub and spoke model for expansion after analyzing the company's requirements and strengths vis-à-vis the current trend. Furthermore, detailed analysis of various revenue streams was taken up in addition to a detailed service overview to describe the service offered. While defining the operational plant, DART Analysts worked along with the client to map out five-year plan with precise goals for each year of the plan's implementation. Also, included is a recommendation for the location, the launch date, and the main activities to be carried out.

Finally, to bring the conception to inception, DART's Financial Analysis team forecasted five-year financial projections based on a specific market and financial assumptions and the probability of achieving the same based on current market conditions. Furthermore, the revenue part includes a breakdown of various components such as revenue assumptions, operational assumptions, investment requirements, projected revenue, total revenue versus total expenses, and finally, a profit and loss statement. Finally, all these details were analyzed, summarized and provided as an assessment under the project viability.

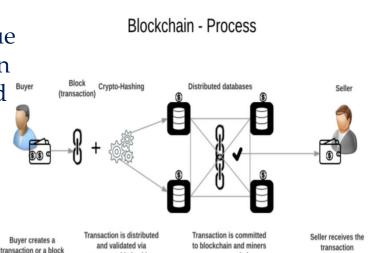


Project Portfolio: Business Plan –Block Chain Technology (2018)

The backdrop: An IT solution provider likes to offer blockchain based products and solutions in various domains for enterprises. They want to know how likely are the clients adapt to the technology and the feasibility of their business in near future. It is where DART came into the rescue to analyze the market and prepare a business plan with financial projections to make quick and solid ¹⁰ decisions on the project.

The final product:

- Overview of the block chain technology market, the key trends and vital facts about the technology in different verticals
- Financial analysis of the project, regulatory issues, TOWS and risk factor analyses of the industry
- Analysis of the top 7 existing competing firms, which included an analysis of the background of promoters, services and product offerings, business model, promotional methods, publishing partners, VC partners, investments, and size of the company.



are rewarded

cryptographic hashing

Project Portfolio: Business Plan – Real Estate Project (2018)

The backdrop: The proposed project was to set up high end luxury villas and Havelis for HNIs in an upcoming area. The client wants a complete business plan with detailed project report to enter into the industry with certain unique features and distinct model.

The challenges: The client does not have any type of blue prints or construction plan to start with for the business plan. The client wants us to design a proper floor plan with proper optimization of the land for Villas, Havelis, Hotels, shopping complex etc. Detailed project plan was prepared which worked as an outline to pitch for funding. The report included market overview, competitor analysis, 10 year financial with detailed cash flow along with operational strategies **Methodologies:** DART Analysts have performed detailed study of the land in order to utilize them as per client's need, and prepared a basic plan with number of Villas, Havelis, Shopping complex, Hotels, Parks etc.



Project Portfolio: Laundry (2017)

The backdrop: 3H Hospitality Solutions Pvt Ltd wanted to set up both industrial and home laundry based out of Mumbai. The client has identified a few of the market pains in advance while arriving with a new business model.

End Product: DART Analysts have performed detailed study of the industry. The competitor analysis was in depth to bring out the deficiencies of current services to define a highly competitive business model. Once the business model was agreed upon, our team studied market opportunities, sourced pricing of machinery including the option to source from other countries. Five year financials was also prepared with the pay-out on account of loan components and resultant RoI



Project Portfolio: Business Plan – Taxi Hailing App (2013)

As our lifestyles evolve, so do the technologies that surround our lifestyles. It is not just physical products that have undergone several rounds of technological manifestations; consumer services too have witnessed significant modifications. Traditional forms of service offerings have spawned into user-friendly solutions with a digital angle that can be easily accessed from home or office. One such instance is the manual taxi hailing service. The client from New York approached DART in 2013 when the concept was in its nascent stage

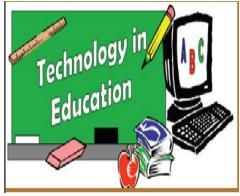


Outcome: DART quickly deployed its available resources toward the project to device an overall strategy. The task was split up into relevant micro-projects that were compiled together by the project lead into a final format that maintained logical flow and met the overall project objectives. The topics included global digital application and taxi market overview, competitive benchmarking, pockets of opportunities, SWOT analysis, target market identification, and financial breakeven point analysis. DART brought together a team with members that had specific skill sets to accomplish the entire project as per client's pre-defined guidelines and expectations. The client secured funding soon the report completed.

The backdrop: As more and more educational institutes are adopting technology, technology in education ventures were an attractive sector for VC funding in 2010. One such enterprising company contracted DART to analyse the market before moving ahead with the business plan.

The final product:

• An overview of the education technology market, the key trends and vital facts about education technology and teacher training, the myths in the education industry about how effective technology is at improving teacher training, regulatory policies, and the risks associated with the industry.



• An analysis of the top 10 existing competing firms, which included an analysis of the background of promoters, services and product offerings, business model, promotional methods, publishing partners, VC partners, investments, and size of the company.

Project Portfolio: Business Plan – Fund Raising for Celebrity Events (2010)

The backdrop: A management consultant in the Pacific Islands wanted to raise funds in the form of private equity investments for a client. The client needed to raise funds for his business of organizing entertainment events throughout the UK and the USA. The management consultant approached DART to prepare a Business Plan.

The challenges: The initial information given for the project was vague, but the client was open to discuss the project in details with DART Analysts. The real challenge was that the business model was unique and there was no similar model available in the market. **Methodologies:** DART Analysts have performed detailed study of business models of related business houses, and performed an in-depth research on the global entertainment industry, with a specific focus on global concerts and events held in 2012 in USA & UK.



Project Portfolio: Business Plan – Fund Raising for Celebrity Events (2010)

The final product: The business plan highlights –

- The profiles of the leading artists of 2012 Madonna, Bruce Springsteen, Roger Waters, Coldplay, Lady Gaga, Kenny Chesney, Tim McGraw, Metallica-James Hetfield and Elton John.
- Upcoming concerts in 2013, top 25 tours of 2012, the expected revenues of the musical industry during 2013–14, average ticket prices of concerts, ticket sale statistics, world tours of 2012 etc.
- Regulatory issues regarding fund-raising in the US and UK markets, a market news analysis section, a TOWS analysis section and a risk analysis section.
- The goals, strategies, business model, revenue and pricing model, promotional strategies, target customer segment, venture setup, financial projections, management and organization structure etc. of the client company.

The outcome: This report was used to successfully raise funds from VC companies thereafter.

Market Research

To analyze the market for the products and services offered by the client, in order to devise strategies to meet the market competition.



What it includes

- ✓ Current market size, growth dynamics & future projections
- ✓ Industry segmentation
- Analysis of trends, drivers, risks and outlook
- ✓ Review of regulatory environment
- ✓ SWOT/PEST analysis
- ✓ Competitive analysis
- Target customer identification & segmentation



Project Portfolio: IMPEX Potential for Afghan Company– Import Agro Products and Export Finished Goods

The backdrop: With Indian government initiative to develop the Chabahar Port for strengthening the trade between Iran, Afghanistan, and Central Asia with India, the client from Afghanistan wants to understand the Agri-commodity market in these countries for potential trade opportunities.

Methodologies: Our team did quantitative analysis of trade data and qualitative analysis of market data to select the commodities and also prepared a financial feasibility study to analyze its expenses, revenue, profit margin, cashflow, assets & funding. We helped the client in fully understanding the import/export opportunities of top commodities for Afghan trading company, and more



The backdrop: Promoter of a mall wanted to open a mall cum cinema hall in a small city in India. He was faced with a dilemma if the same would be profitable or not in a small city. Hence he wanted DART to prepare a market research report that would analysis the feasibility and viability of the city and the idea of mall development in that city.



Methodologies: DART brought together a team with specific skill sets to accomplish the objectives as per client's pre-defined guidelines and expectations. At first, an overall strategy was devised, which was interlaced with specific time-bound milestones that each team-member need to achieve. In this way, the project was split up into specific tasks. The Project Lead was assigned the task of compiling the report into a final format that maintained logical flow and met the overall project objectives.

Project Portfolio: Market Research – South Asia's Wealthy Diaspora

The backdrop: The client, a market intelligence firm, wanted DART to prepare a market research report and analyse the wealthy of Non Resident South Asians.

This client wanted to focus on the non-resident South Asians from India, Pakistan, Bangladesh and Sri Lanka who have migrated to the Middle-East, to Europe, to America, and to elsewhere in Asia, in search for better work opportunities.

The challenges: DART Analysts had to prepare the report by focusing on facts and figures. The volume of data to be found out was huge, and had to be the latest data, which was the primary challenge.



Project Portfolio: Market Research – South Asia's Wealthy Diaspora

The final product: The market research report provides an analysis of –

- Latest data on wealth accumulated by NRSAs and in what forms
- NRSA wealth management market
- A list of NRSA billionaires in the world
- The remittances to South Asia by NRSAs
- Heads of investments made by the NRSAs, with a focus on NRIs
- The most preferred investment locations of NRIs
- Reasons that led to the migration of people from these countries
- The RBI norms that govern the investments made by NRIs
- Government efforts to attract NRIs
- NRI support to entrepreneurship
- Growth drivers of NRI wealth
- Impact of the 2008 financial crisis
- Strategies for market penetration

Project Portfolio: Market Research – Market Assessment and Go to Market Strategy for a Beverage Company

The backdrop: A beverage company was looking to break into the Indian market with a well-known health drink with negligible presence in India. The drink is expected to provide beneficial impact on the body's immune system. The beverage company's goal was to target health-conscious yet self health-deprived people, namely in India's metropolises regions.

The challenges: A beverage company from abroad was scouting the Indian market in preparation for the introduction of the health drink. However, it was unaware of the drink's scope in India and was unsure of the approach required to market the new product in India. These two obstacles hindered the company's ability to realize its vision. To make the concept a reality, the business engaged DART to do product market research to determine the viability of launching the product and develop a product launch strategy.



Project Portfolio: Market Research – Market Assessment and Go to Market Strategy for a Beverage Company

The final product: DART Analyst drafted a detailed report that assisted the business in realizing its vision by overcoming obstacles. The study covers India's leading cities: Bangalore, New Delhi, Mumbai, Hyderabad, Chennai, Pune, and Kolkata. The report was split into two sections. The first part covered the market assessment and competitor analysis, while the second covered the product launch strategies.

A market overview of all regions was provided, starting with product awareness. The product awareness aided the business in determining the feasibility of the launch. The plan included the USP's and their distributional channels for the major companies at the regional level. The market overview of all these cities and companies aided the company in determining the potential for the company's product. The study of current businesses and their operations is expected to assist the company in adopting best practices such as efficient product delivery mechanisms, product pricing, product packaging and others and identifying gaps in the existing structure that, if addressed, may be more productive.

After thoroughly analyzing the market, the DART analyst compiled business' tactics to launch its product in the second section of the report. The strategies encompassed virtually every element, from distribution routes to promotional methods. The Go-To-Market Strategy, which would lead the company while launching its goods in the new market, was also a focus of the study. This strategy encompassed all potential channels and programs that the enterprise may use to reach its target consumers in the new market.

Technology Research

To analyze the trends of the new and existing technologies for various applications and provide insights on defining a business model for the same.



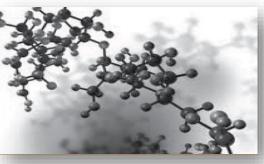
What it includes

- ✓ Deeper review on Technology
- Industry Segmentation and Applications
- ✓ Future demand and opportunities
- Analyze strategies of peer and competitors companies
- ✓ Sales and marketing performance indicators



Project Portfolio: Technology Research – Medical Polymers

The backdrop: A consulting firm wanted to summarize the latest developments in the medical polymers market. They approached DART to prepare a technology research report.



The final product: The technology research report highlights –

- An analysis of the key technical aspects of medical polymers, the key technical trends that are likely to be adopted by the industry, the relevant R&D efforts, and the choice of raw materials. Market segmentation on basis of geography and type of polymer materials carried out.
- The regulatory guidelines framed by FDA and EC; and the regulatory regime adopted in various geographic regions, such as US, European Union, China, Japan and India.
- The commercial feasibility of certain types of medical polymers in terms of their performance and cost structure as compared to already existing materials used in the medical industry. A comprehensive revenue forecast analysis.

Primary Market Research

To gather Information through self-conducted quantitative and qualitative research methods and answer questions that are specific to clients' requirements. The raw data are further analyzed to make conclusion.



What It Includes:

- ✓ Conducting Survey
- ✓ Raw Data Collection & Formatting
- ✓ Correlation Analysis
- ✓ Key Driver Analysis
- ✓ Detailed report with Recommendation and Conclusion



Primary Survey to Support Developing AI System to Detect Mild Cognitive Impairment–University Project (2024)

Objective: To support the development of an Artificial Intelligence to Detect Mild Cognitive Impairment and Alzheimer's Disease Dementia through Self-Figure Drawing and interviewing those above 65+ years

Methodology: Sample of 500 were selected from different age groups and educational background - administered MoCA test before interviewing the respondents with a set of 39 questions.

Market Research tools: Direct Interview, Drawing Test, Test of Response

Team Size: Three members for 3 months

ASME program Membership Feedback – ASME India Private Limited (2024)

Objective: ASME runs marketing and promotional services to pop up their membership program. The study was intended to review the usage patterns of subscribers of the ASME program to gain deeper understanding of members' professional interests, development preferences, relevance, usage, and satisfaction levels associated with the benefits offered through ASME's membership programs - both their active (dues paid) and inactive (dues unpaid or not renewed) members to gather feedback on their membership experience.

Methodology: Appropriate sampling method was used and selected 1,000+ respondents to participate in the online survey.

Market Research tools : Google form, Direct Call, Group Discussion

Team Size - Five members for 3 months

Tint Paint Formulation Study –Maruti Suzuki India Limited (MSIL) (2023 – 25)

Objective: To study the preferences and trends in paint formulations across the Maruti Workshops to guide a software firm in Bangalore to develop AI enabled tool for better paint mixing. This pan-India survey was aimed to gather valuable insights into the preferences and trends in paint formulations with the usage of the tools and reported variations and benefits.

Methodology: Extensive periodical study is continuing since 2023 focusing on Tint Paint Formulation. Visited Maruti Body workshop and collected data using mobile application with predefined questionnaire. Interviewed Workshop Managers in respective places to assess the usage pattern and effectiveness.

Market Research tools: Captured vital data points with the Mobile app and conducing periodical survey on sample size of 1,663 dealers across India.

Team Size: Hired 45 field staff in all locations.

Iron-Folic Acid (IFA) Tablets in Schools – NGO

Objective: To evaluate the tablet distribution sponsored by Central Government by Ministry of Health and Family Welfare (MOHFW). This initiative is part of broader efforts to combat anemia and improve health outcomes among students in each region.

Methodology: Primary survey was organized through a Delhi based NGO, and the study was conducted in Karnataka focusing on the usage of Iron-Folic Acid (IFA) tablets in schools. The study encompassed 260 schools, with an average of six students per school + Headmaster, aiming to assess the effectiveness of the distribution and usage of these supplements.

Market Research tools: CAPI based survey support by mobile app.

Team Size: Hired 68 field staff and 10 supervisors.

Street Vendors Survey Bengaluru Urban, Rural, and Mysore – NGO (2022-23)

Objective: To understand the problems faced by Street vendors to define appropriate policy to uplift their quality of life.

Methodology: The survey was conducted by interviewing 750 street vendors across Bengaluru Urban, Rural, and Mysore. Interviewed BBMP Officials and Office bearers of the Association in addition to vendors.

Market Research tools: CAPI based face to face interviews.

Team Size: 24 field staff were hired for all locations

Data Analysis

To analyze huge amounts of data to sift out the relevant information from it. The captured data is then converted into information and knowledge.



What it includes :

- ✓ Usage of various analytics software
- ✓ Data cleaning
- ✓ Deep data mining
- \checkmark Data analysis
- ✓ Online research



The backdrop: The data repository provided by the client was about five years long and was accumulated on a daily basis. The client wanted DART to analyze the data and arrive at the key trends, insights and indicators that will help the client in forecasting farm supplies better and result in better informed decision making in the organization.

The client required the following trend analysis from the data:

- Yield (No. of nuts per month) of the farm and location trend.
- Harvesting frequency change.
- Button nut shedding The reduction in the number of nuts in case of the farms where harvesting has not happened.
- Impact of the nut position on productivity for the subsequent years.
- Impact of rainfall on productivity.



Methodologies:

DART Analysts surveyed the selected farms on daily basis. The number of farms surveyed per month was 120.

First, cluster analysis is done to identify homogenous clusters in the data. This eliminates the inputs which are out of range. The purpose of cluster analysis was to discover a system of organizing observations into groups where members of the groups share properties in common.

Then, in order to forecast the farm supplies, dependent and independent variables are identified. It is found that "Expected Nuts in Next Plucking' is the dependent variable.

The independent variables are as follows:

Independent Variable	Description
No. of trees	Each farm has a fixed number of trees.
Number of Nuts Harvested	Plucking of nuts (harvesting) happens once in two months. It is the total number of nuts harvested for each farm.
Rainfall data	Rainfall measurements.
Last Plucking Month	Month when the nuts were last plucked.
Last Plucking Year	Year when the nuts were last plucked.
Next Plucking Month	Month when the nuts are expected to be plucked next.
Next Plucking Year	Year when the nuts are expected to be plucked next.

The independent variables are as follows:

Independent Variable	Description
Button Nuts	Nuts grow in bunches, with a new bunch springing every one month. The newest bunch is called the button bunch and the average number of nuts per tree for a farm is called the 'Button Nuts'.
Matured Bunches	The average number of matured bunches per tree is given in the column 'Matured Bunches'.
Matured Nuts	The average number of matured nuts per tree in all these bunches put together is given in 'Matured Nuts'.

Using the dependent and independent variables, a multiple regression model is developed which can be used for forecasting the dependent variable, "Expected Nuts".

Thereafter, the hypothesis is tested using the Anova table.

Industry Expertise



Retail Set up Consulting



Digital Strategy



Strategy Consulting



FOR YOUR BUSINESS Definitive Guide to Strategic Marketing Planning

Marketing Consulting



Industry Expertise





FMCG





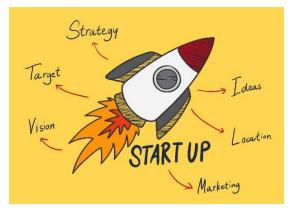
Beverage

E-commerce

Industry Expertise



Information Technology



Start up



FINTECH



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