



## QUALITATIVE ANALYSIS OF PROCUREMENT PROCESS FOR MICRO, SMALL, AND MEDIUM ENTERPRISES

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**Abstract:** Any business procurement is one of the critical functions, involving around 60% of the cost of the materials. According to recent studies, much research is focused on the procurement process in large organizations, but limited studies on micro, small, and medium enterprises. This sector contributes 29% of GDP and 10.5 crore business units in India, creating 11.1 crore employment. A deep understanding of the business is the need of the hour for micro, small, and medium enterprises to become competitive in global business scenarios. This paper focuses on the procurement process in micro, small, and medium enterprises. The study was conducted in India between February 2022 to May 2023 by using Business Canvas Model. Around 33 companies were analyzed after collecting the qualitative data, and it was found that 50% of the MSME sector did not follow any purchasing process. The majority of micro-enterprises do not have any purchasing process and purchase spot market, whereas medium enterprises procure the materials in advance due to their financial position and more negotiating power than micro and small enterprises.

**Key Words:** Procurement Process, MSME, Competitiveness, Design Thinking, Business Canvas Model

### I. Introduction

According to the Center for Monitoring Indian Economy (CMIE), in 2022, Micro, Small, and Medium Enterprises contributed 29% of the GDP of India, 6.3 crores MSMEs constituted 11.1 crore employees. This sector is the second largest employment generator after agriculture. Primary job generation is professional services 10%, the textile and apparel sector 9.4%, food and beverage 7.9%, wholesale and retail trade 6.6%, hospitality services 6.4%, and the manufacturing sector 6.2%. India's GDP can increase from the present 3 trillion dollars to 40 trillion dollars by 2047 (Economic Times Dated 10/06/2023). The National Sample Survey in 2015-16 reported that the MSME sector created 11.1 crore jobs, with 360 lakhs in the manufacturing sector, 387 lakhs in trade, and 362 lakhs in the service sector. The SIDBI - D & B Sustainability Perception Index 2023, 41% of MSMEs are fully aware that sustainability is an indicator of profitability. 90% of MSMEs view cost reduction is the main motto to implement sustainability initiatives. The Table 1. Shows the classification of Micro, Small, and medium enterprises in India.



Micro enterprises	Small enterprises	Medium enterprises
Investment in plant and machinery of not more than Rs 1 crore; annual turnover of not more than Rs 5 crore.	Investment in plant and machinery of not more than Rs 10 crore; annual turnover of not more than Rs 50 crore.	Investment in plant and machinery or equipment of not more than Rs 50 crore and annual turnover of not more than Rs 250 crore.
"Source: msme.gov.in"		

Table.1. Classification of Micro, Small, and Medium Enterprises(India)

**II. Procurement Process:**

Procurement involves a wide range of activities in obtaining goods and services. The primary purpose of the procurement team is to procure materials at competitive prices that deliver value to the organizations. Many organizations’ procurement is strategic in nature, which involves gathering of business information, sourcing supplies to, tracking of receipt of suppliers, and making the payment to the suppliers, whereas in some organizations, procurement is a narrow range of activities issuing purchase orders and making the payments. Understanding supply chain procurement is an essential function that helps the company identify reliable suppliers to avoid wasting time and money and avoid risk in business. Minimizing the cost is one of the crucial aspects in business to identify the potential suppliers that provide quality goods and services. The following Table 2 gives the various types of procurement processes in a business.

	Direct Procurement	Indirect Procurement	Goods Procurement	Services Procurement
<b>What is it?</b>	Any good or service required to produce an end product	All non-production-related goods or services	Physical items typically held as inventory, whether for direct or indirect procurement purposes	All people-based services procured, whether for direct or indirect procurement purposes
<b>Examples</b>	Raw materials, components and parts, machinery, items purchased for resale	Office supplies, marketing services, utilities	Raw materials, wholesale items, office supplies	Law firms, contractors, contingent labor, on-site security services

Table 2: Types of Procurement Processes (Courtesy: Oracle Corporation)

The procurement process involves the following steps, as shown in Figure 1.



Figure 1. Procurement Process (Courtesy: Bellwether Corporation)

### III. Design Thinking

Design thinking is a human-centered approach that is widely used in the problem-solving process. This approach encourages organizations to understand the customer better, product, service, and processes. The design thinking process can be applied to various real-time applications. For example, banks can improve their service delivery by understanding customers, organizations can design better products, and organizations can design better service delivery to understand the customer’s feelings, empathy of the end users, and their requirements. Design thinking involves the five stages

1. Identify the problem
2. Discover the need
3. Create alternative solutions
4. Test the better solution
5. Evaluate the selected solution

The following Figure 2. Shows the design thinking process

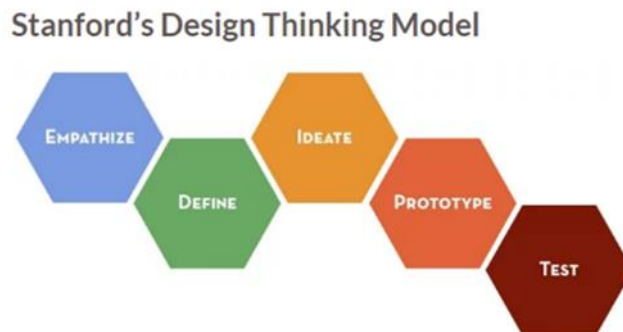


Fig.2: Design Thinking Process



- 1. Empathize:** At this stage, what the user wants, and the challenges faced by the user can be determined. Either interview or survey method can be used at this stage to get customer insights.
- 2. Define:** At this stage, a human-centric problem statement can be formulated to provide guidance and support.
- 3. Ideate:** At this stage, many ideas are generated, and the team can make use of brainstorming to get the various ideas. Out of which, the best idea can be selected.
- 4. Prototype:** A model proforma can be designed at this stage. The model can be a physical form or maybe digital model or maybe a process.
- 5. Test:** Testing can be done at this stage and get feedback from the users to understand the user experience.

Many companies are using the Design Thinking approach for the problem-solving process. For example, GE health care used this approach for diagnostic imaging services as many children were observed crying while using due to lengthy procedures. Magnetic Resonance Imaging Systems replaced cold, dark, and flickering lights. Oral B wants to use a design thinking approach to upgrade its electric toothbrush. Airbnb uses this approach to understand what the customers spend time looking for a temporary stay using the high-quality camera to show every room rather than one room to understand the customer facilities in a hotel (Esther Han, Harvard Business Review, 22/02/22).

#### IV. Business canvas model

Alex Osterwalder, Strategyzer, has developed the business canvas model as a blueprint to prepare a strategy for implementing a new product design, process, or system. This model consists of nine building blocks for the company to deliver value and money to the customer. The Nine blocks on the canvas are

- a. Customer Segments:** Who are your customers? What do they think about your business, Feel?
- b. Value Proposition:** What is unique about your business? Why customer will buy your product?
- c. Channels:** How are these propositions sold, valued, or delivered?
- d. Customer relationship:** How you are maintaining the customer relationship. How do you interact with your customers?
- e. Revenue Stream:** How does your business generate revenue from value proposition?
- f. Key Activities:** What is unique about your business is customization, does the business deliver a value proposition.
- g. Key Resources:** What are assets are used for delivering the product or service/
- h. Key Partnership:** Who are your partners for key activities?

**iCost Structure:** What are the main cost drivers for your business? How are they interlinked with your business

Fig.3 shows the Business Canvas Model template shows the nine elements.

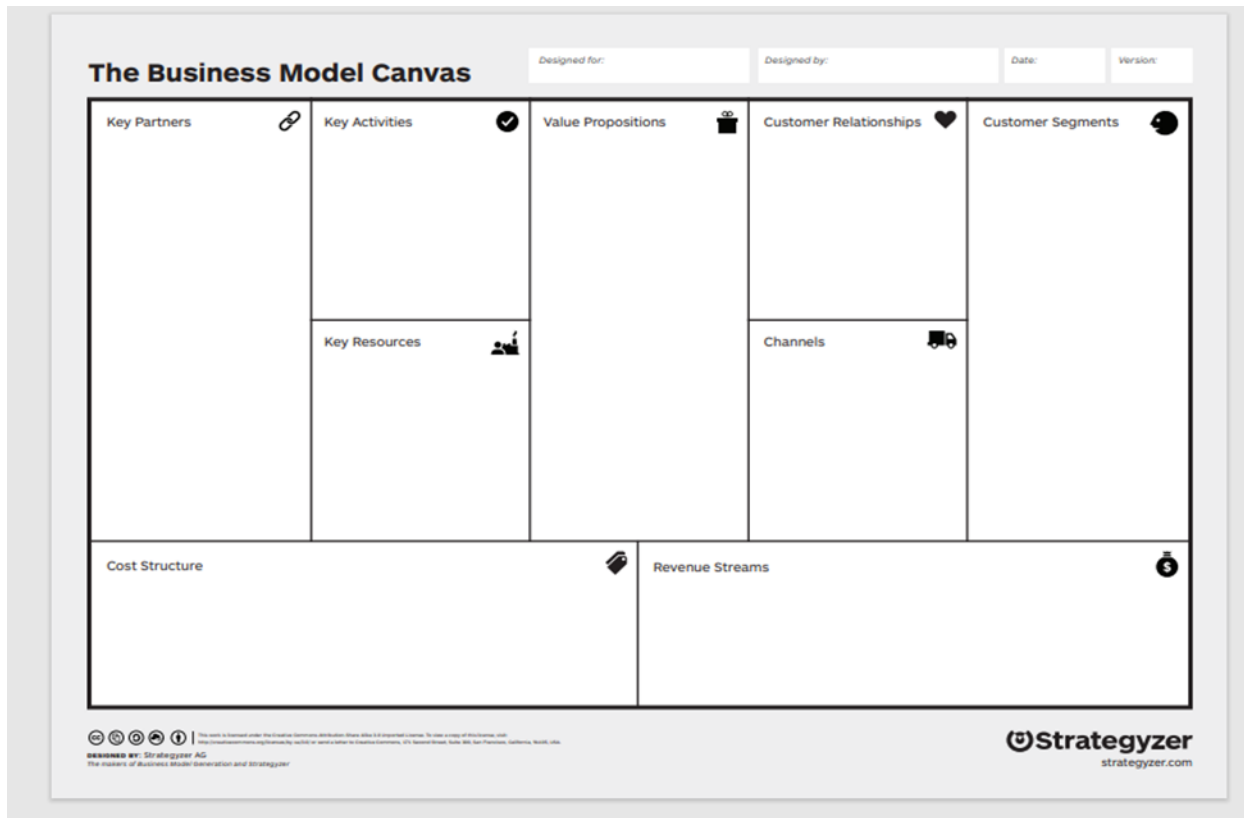


Fig.3. Business Canvas Model (Courtesy: Strategyzer)

#### IV. Research Methodology

A field study was conducted in India between February 2022 to May 2023. Using a business canvas model, we interviewed 33 MSME owners to understand their business, pain points, and gain points for their business. The interview was conducted by making a prior appointment with the owners. Out of 33 companies, 11 are in the micro category, 15 are in the small category, and the remaining are medium enterprises. Most of the organizations are covered in engineering industries. The following table 3. shows the list of companies in the data.

S.No.	Name of the Company	Type of Business	Turnover (Crores)	Value Proposition	Customer Segments	Category
1.	OM Express Print Pack	Contract packing for pharma and engineering	1	1.Cusotomization	1.Pharma 2. Beverages	Micro
2.	Maruthi Tooling, Hyderabad	Manufacturing of moulds	1	1.Design 2.Manufactuirng	1.Plastic part 2.Electrical	Micro
3.	Arow Industries, Hyderabad	Manufacturing of accessories for two wheelers	1	1.Own fabrication shop 2.Quality	Automobile Dealers	Micro
4.	Jagisa Apperel, Hyderabad	Uniforms, Dress for Schools, Hospitals and factories	1.5	1.Own Skilled Tailors 2.Qaulity	1.Schools, colleges 2.Hospitals 3.Security Agencies	Micro
5.	G V Polytch Pvt Ltd, Hyderabad	Manufacturing of Oil seals, Trunnion shaft bushes	1.5	1.In house design 2.Manufactuirng	1.Power Plants 2.Defence	Micro
6.	Revaron, Bangalore	Manufacturing of Laboratory equipment	2	1.In House R and D 2. Customizat ion	1.R and D Labs 2.Pharma 3.Engineerin g	Micro
7.	Swatch Air Filters, Nagercoil	Manufacturing of Hepa filters and filters for AHU	2	1.Media from SIFA-Italy 2.In House Machining	1.Pharma 2.Engineerin g 3.Health Care	Micro
8.	Sampath Engineering Works, Hyderabad	Manufacturing of lifts for construction sites	3	1.Special purpose 2.Good Service	1.Builders 2.Constructio n Contractors	Micro
9.	Sri Jyotirmoyee Tool Craft, Hyderabad	Manufacturing of CNC components	3	1.Quality 2.Good Manufacturing Capability 3.Trained Manpower	1.Public Sector: BHEL, BDL, ECIL 2.Private: Megha Engineering	Micro
10.	Gajanana Cranes, Hyderabad	Manufacturing of EOT cranes and spares	3	1.Design 2.. Customizat ion	1.Engineerin g 2.Workshops	Micro



11.	Tool Tech, Hyderabad	Manufacturing of Dairy equipment and water plants	5	1. Customization 2. Design 3. Competitive Price 4. Quality	1. Dairy 2. Food Processing 3. Distillery	<i>Micro</i>
12.	Omkar Modular, Mumbai	Manufacturing of storage racks for pharma and engineering	6	1. Customization 2. In House fabrication	1. Pharma 2. Engineering 3. IT	<i>Small</i>
13.	Crown Industries, Hyderabad	Manufacturing of pouch packing machines and exports	6	1. Design 2. Customization 3. Service	1. Food Processing 2. Dairy	<i>Small</i>
14.	Optomech Engineering, Hyderabad	Optical Measurements, Engineering Metrology, Light engineering company	10	1. Latest Vision Technology 2. Automated Inspection 3. Optical Measurement software	1. Pharma 2. FMCG 3. Pesticide 4. Lubricant	<i>Small</i>
15.	Bunty Surgical, Hyderabad	Manufacturing of Hospital beds and other accessories for Hospitals	10	1. Customization 2. Consistent Quality	1. Hospitals 2. Dealers	<i>Small</i>
16.	AOF Filtrations Systems, Hyderabad	Manufacturing of all types of filters for water and oil application.	10	1. Customization 2. Variety 3. Design 4. Quality	1. Cement 2. Pharma 3. Power Plant 4. Engineering	<i>Small</i>
17.	JPS Engineering, Hyderabad	Manufacturing of Pharma machinery	10	1. In house Design 2. Own Engineering workshop	1. Pharma 2. Engineering	<i>Small</i>
18.	Vanguard, Hyderabad	Fabrication of Heat Exchangers and Coolers	10	1. Customization 2. Quality 3. Design 4. Service	1. Food 2. Pharma 3. Engineering 4. Defence	<i>Small</i>



19.	X2 Engineers, Rajkot	Manufacturing of Globe, Check and Ball valves	10	1. In House Castings 2. Quality	1. Pharam 2. Chemical 3. Enginnering 4. Food Processing 5. Dairy	<i>Small</i>
20	Hoffen Plastics, Hyderabad	Manufacturing of Moulds for plastic industry	12	1. Design 2. Customization	1. Pharma 2. Electrical 3. Packing	<i>Small</i>
21.	Gramee Naturals, Hyderabad	Food processing of pulses, oils	15	1. Quality 2. Own Retail stores	1. Directly to customers 2. B2B and B2C 1.3. E Commerce	<i>Small</i>
22.	HS Containers, Hyderabad	Manufacturing of PVC Drum packing	16	1. Customization 2. Standardization	1. Pharma 2. Chemical 3. Bio Tech	<i>Small</i>
23.	Ultra Filter Air System, Hyderabad	Manufacturing of Hepa filters, Filters for AHU	18	1. Customization 2. In House Fabrication	1. Pharma 2. Hospitals	<i>Small</i>
24.	Anandsheel Hydrauliks, Hyderabad	Manufacturing and exporting of Hydraulic cylinders and powerpacks	20	1. Qaulity 2. Engineerin g skills	1. Steel plants 2. Automobile	<i>Small</i>
25.	Mill Master Machining, Bangalore	Manufacturing of rice mill machinery and spares	40	1. Customization 2. Quality 3. Trained work force	1. Rice Mill owners 2. Dal and Pulse Mill Owners	<i>Small</i>
26.	Mill Smart Engineers, Hyderabad	Manufacturing and export rice mill machinery	40	1. Customization 2. Quality	1. Rice Mill owners 2. Oil Mill Owners	<i>Small</i>
27.	High End Fan Manufacture (Company does not want to disclose their name), Bangalore)	Manufacturing of customized Luxury fans	50	1. Luxuray 2. High End 3. Customization	1. Hotels 2. shopping malls 3. Function Halls	<i>Small</i>



28.	Superior Weldmesh, Nagpur	Manufacturing of wire mesh as per customer orders.	50	1.Accuracy 2.Consistency in quality 3.Customization	1.Contractors 2. Real Estate 3. Dealers	<i>Small</i>
29.	Veljan Hydriair, Hyderabad	Manufacturing of Hydraulic equipment	100	1.Cusotmization 2. In house R and D	1.Engineeering Companies 2.Export to Thailand	<i>Medium</i>
30.	Vardhman Tube Mill, Umbergoav	Manufacturing and exporting Ss pipes and fittings	100	1.Own Mill 2.Consitent Quality 3.competitive rates	1.Pharma 2.Chemical 3.Engineering	<i>Medium</i>
31.	Mekins Industries, Hyderabad	Manufacturing of metal pallets and cage boxes and trollies equipment for Malls and export units	100	1.Customization 2.Good Engineering workshop 3.Trained Manpower	1.Retail Stores 2.Export units 3.Engineering	<i>Medium</i>
32.	Cosmos, Pune	Manufacturing of lifts for construction and form work	100	1.Customization 2.Quality 3.Design	1.Contractors 2.Consturction manufacturer s	<i>Medium</i>
33.	Ami Polymers, Silvassa	Manufacturing exporting of oils seals, hoses and braided hoses	175	1.In House R and D 2.Customization 3.Quality and Delivery	1.Pharma 2Chemical 3.Engineering 4, Beverages	<i>Medium</i>

Table 3. List of Companies the survey was conducted.

### Case Study 1: HS Containers – Small Category

HS Containers is a Hyderabad based company in Telangana manufacturing high finished wire, narrow and open mouthed blow molded containers made from food grade HM/HDPE virgin granules with the latest technology. The company having 105 team members and turnover is 16 crores. The customers include pharma, food and bio fertilizer manufacturers. The company does not have a dedicated purchase department and most of the purchasing can be done by owner himself. The business canvas model of HS Containers is shown in the Figure.4.

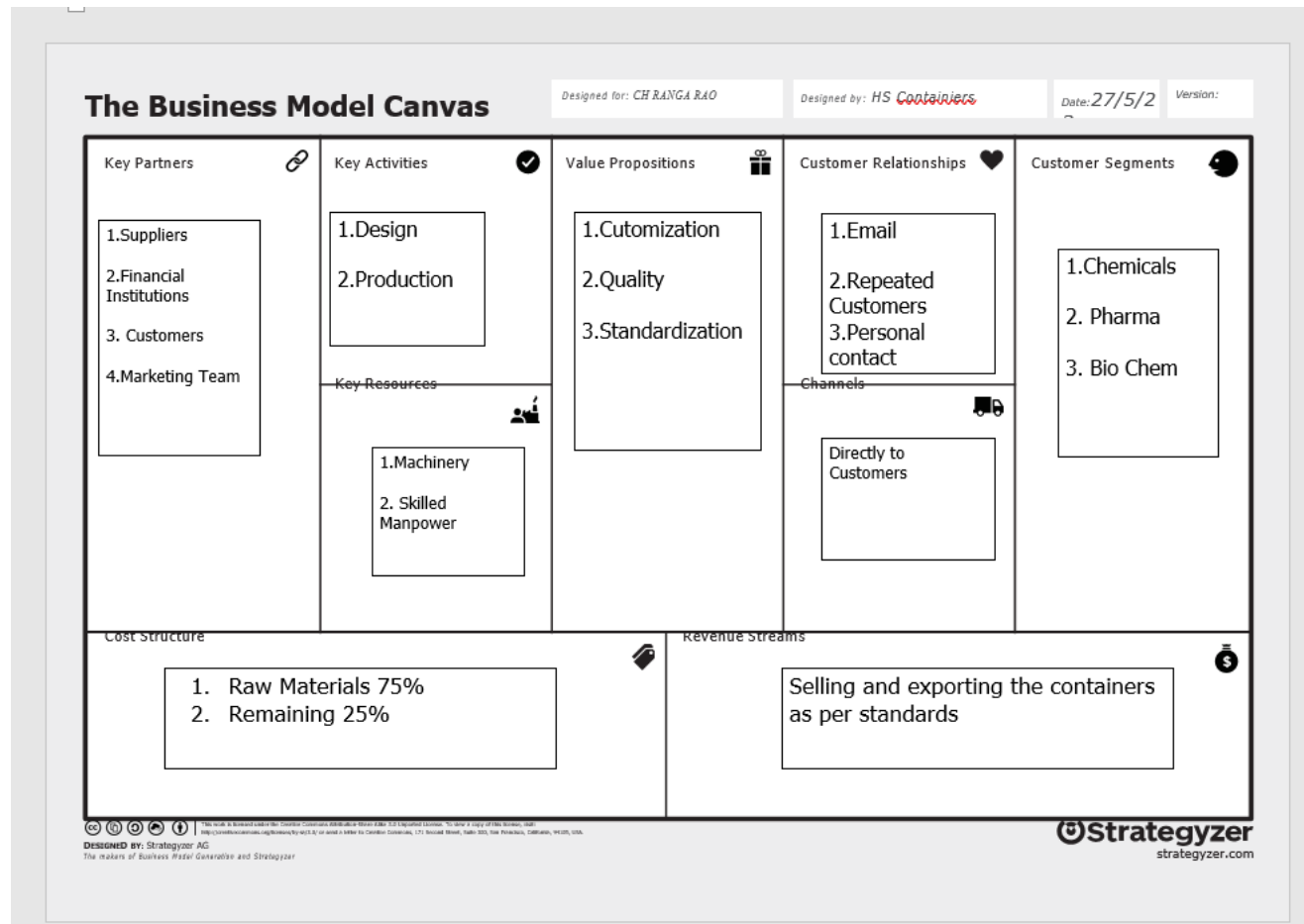


Fig.4. Business Canvas Model (HS Containers, Hyderabad)

### Purchasing Process:

There is no separate purchase department. Purchase of the raw materials granules getting one month in advance from Reliance and Haldia Petrochemicals. The company is not maintaining any stock due to volatility in petroleum products price changes from time to time. These materials are procured and processed against the orders received from customers.

### Case Study 2: OM Express Print Pack, Hyderabad- Micro Category

Om Express Print pack was established in 2011 cater the needs of pharma, food and FMCG packing outsourcing company. The company doing pouch packing and labelling for various customers like HUL, ITC and Pharma companies like Aurobindo pharma and Dr.Reddy's Labs for their design operating with eight people having state of the art pouch packing machines and

printing machines in their workshop. The company maintains consumables like Inks, chemicals in minimum order quantity of 5% and the procurement cycle is one month. The turnover of this company is one crore and there is no separate purchase department to do the purchasing activities and most of the done by owner him self. The main pain points in purchasing process is the delivery of the materials is 10 days and most of the orders on customization and specific customer orders only. Materials are procured against order and there is no stock of the items due to variation in demand of the orders and not continuous. Fig.5 shows the business canvas model for the company OM Express in detail to understand their business, customer segments and the value proposition of the organization in detail.

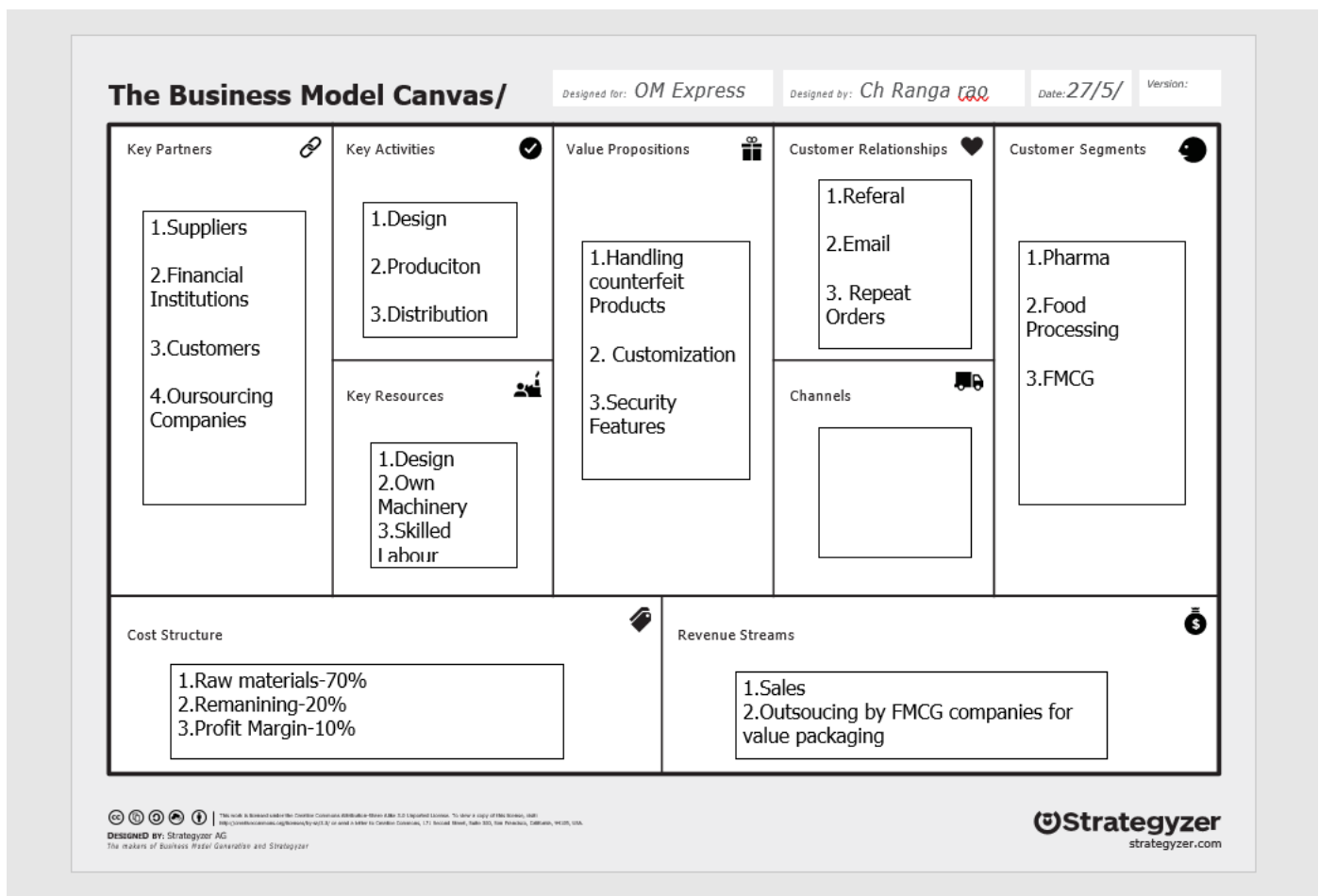


Fig.5 Business Canvas Model- OM Express

**Case Study 3: Mekins Industry Pvt Ltd, Hyderabad- Medium Category**

Mekins was established in 1978 and having various units in Hyderabad, Chennai, Pune and Sanand. The company employs 1200 people and having turnover is 100 crores. In Hyderabad

unit around 300 people are working. The company manufactures automotive pellets, retail storage racks and trollies, metal cages, Euro Pallets, Wire mesh bin and containers. In Hyderabad unit the organization having dedicated purchase department of 8 members. The purchase plan is 15 to 30 days. The company having 200 and above vendors and following the Vendor rating system. The stores having 4 persons are working. Fig.6 shows the business canvas model for the company Mekins has been described.

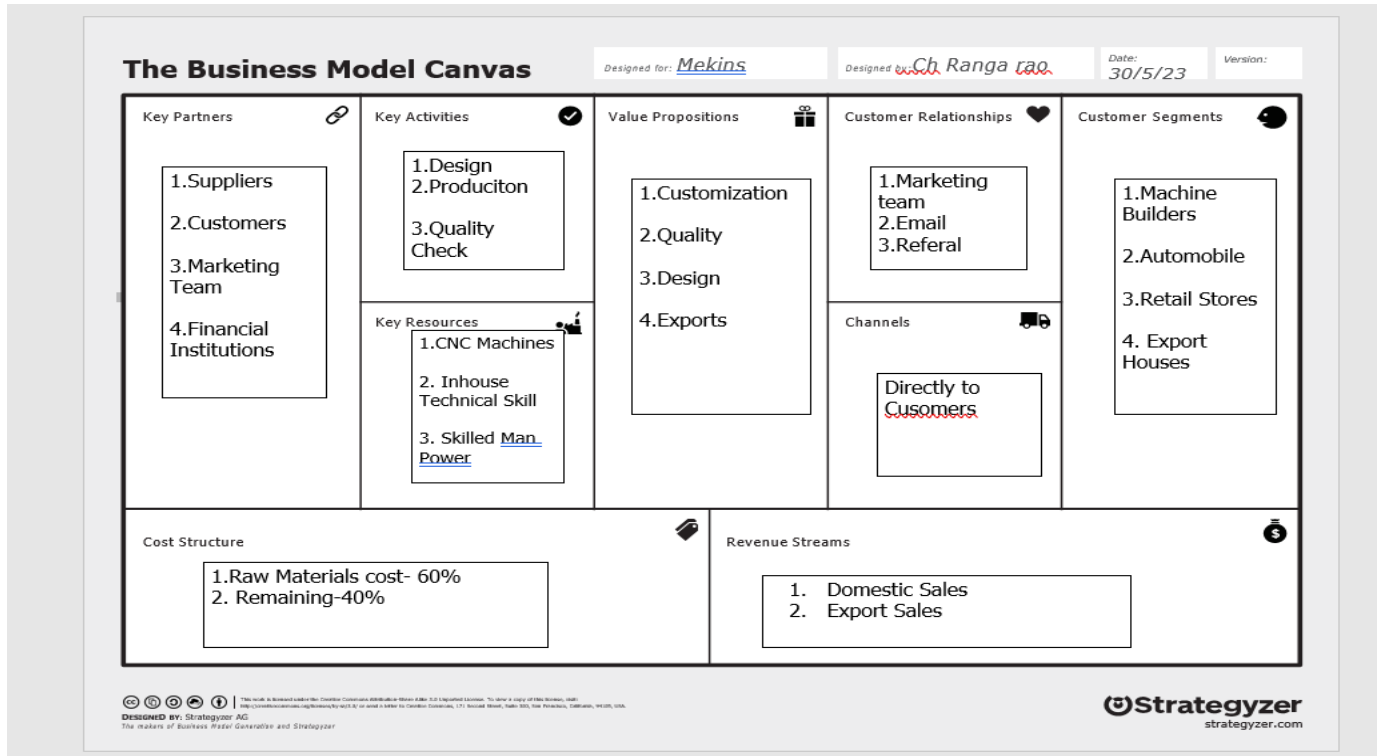


Fig.6. Business Canvas Model- Mekins

## V Conclusions

Micro, Small, and medium enterprises contribute 29% of the GDP in India. An understanding of their business process and procurement process is necessary to improve their supply chain efficiency, the skill gap in the procurement process, and competitiveness in the market. We have conducted a field study in India. About 33 companies are participated in this field survey. From the survey, 50% of the companies do not have any standard procurement process or advanced materials planning, and most of them procure materials on the spot market, which is 20 to 30% of higher than the planned one. Medium enterprises have dedicated procurement departments, advanced materials planning, and strategy for their business. Micro and small enterprises, on the other hand not have the same type of jobs in the long run, and most of them are customized, and



there is a risk of inventory when they stock the items in advance, and there is no guarantee that same business will come for next six months to one year. The majority of the Micro and small enterprises start procuring materials once they received the confirmed order from their clients. Most cases, they are also facing manpower shortages, the financial cycle is more and not getting the payments in time from their clients, and no bargaining power due to competition in the market.

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