Any 4

1. Nature of service and service encounter
3. Elaborate complaint handling and service recovery.
6. Developing strategy for building world class org.
4. NSD cycle
5. Vehicle routing problem
2. Balancing demand and capacity

Compulsory question.

7. Examine the GDD growth in Indian service sector.

Answers.

4. New service development:-

* The process of NSD involves several key stages & factors

a) Idea generation:- Ideas for new services come from various sources including customer suggestions, customer db, demographic trends and tech. advancements. These ideas form the initial I/P for the NSD process.

b) Development stage: New ideas are screened, and promising concepts are developed and tested for feasibility. This compute means move forward to the analysis phase.

c) Analysis stage: concepts are further evaluated to determine their potential as profitable business ventures. Factors such as market demand, competition, cost, potential ROI are assessed.

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d) Design phase : successful concepts from the analysis stage undergo detailed design and development to create the NS product and process.
Considerable resources are invested in this phase to ensure that the service meets customer needs and can be effectively delivered.

e) Field testing : Once designed, the new service is tested in a real world setting, typically in a specific city (or) region.
This phase involves personnel training, marketing campaigns, gathering feedback from customers to refine the service further

f) Full launch : After successful field testing, the new service is launched on a broader scale, either nationally (or) worldwide.
This stage marks the official introduction of the service to market and involves scaling up operations to meet demand.

Service product components : (people, systems).

people → employees and customers are integral components of service product. Employees must be recruited, trained and empowered to deliver excellent service.

systems → various systems are essential to accomplish tasks in service delivery.
Back office systems such as patient records

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systems in healthcare clinics, support customer-facing employees. Front-office systems like online hotel booking platform, interface directly with customers to facilitate service transactions.

NSD Role of technology in service innovation

* Technology advances: Delievering value to customers.

Eg: Power/energy, physical design, materials, methods, info.

(X) Of NSD cycle:

=> enhances competitive advantage
=> ↑s customer satisfaction
=> Improves operational efficiency
=> ↓ market risks
=> encourage innovation

5. vehicle routing problem

* It is a logistical optimization problem where the goal is to determine the most efficient routes for fleet of vehicles to serve a set of customers.

* It helps to reduce operational costs, improve delivery times, and enhance customer satisfaction by optimizing routes and resources allocation

b) Objectives of VRP in service:-

Minimize Travel Distance/Time: Reduce fuel consumption and travel costs.

Maximize vehicle utilization: ensures optimal use of available resources

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Meet customer demand: Ensures timely and accurate service delivery

Minimize operational costs: Balances service quality with cost efficiently.

Types:

(i) Capacitated VRP: Vehicles have limited capacity and the objective is to fulfill customer demands within these limits

(ii) VRP with Time windows: Service must be delivered within specific time slots.

(iii) Dynamic VRP: Routes are adjusted in real time based on changing demands.

(iv) VRP with pickup and delivery: Involves transporting goods (or) passengers from specific pickup locations to delivery destinations.

Applications of VRP in service:

E-commerce logistics, courier and postal services, Healthcare service.

Challenges in VRP implementation:

Traffic and Route variability, demand fluctuation, Time sensitivity.

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Solution Techniques for VRP:-

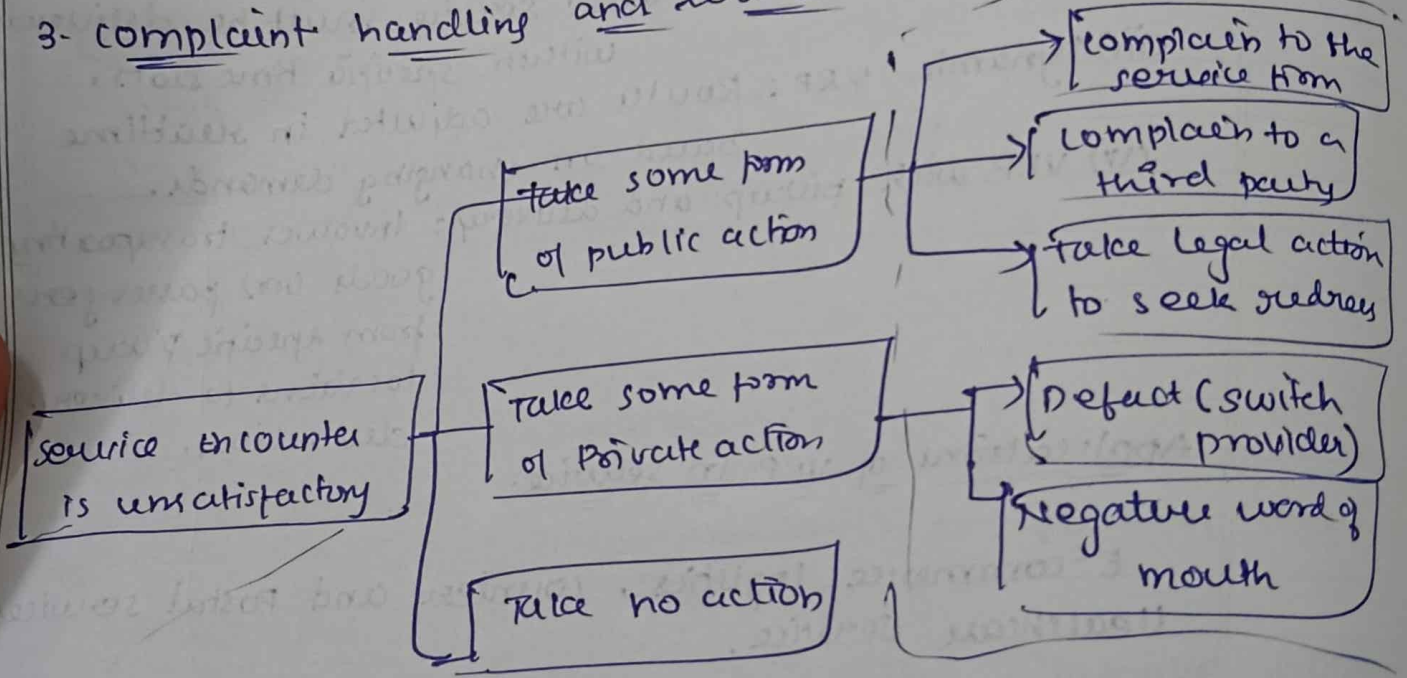
Exact algo → Branch-and bound
Branch-and-cut for small scale problems

Heuristic methods → Genetic algo, simulated annealing

Metaheuristic approaches ⇒ Ant colony optimization to improve route efficiency

~~1. Nature of service and service encounter:~~

3- complaint handling and service recovery.



(or)

Any one (or) combi. of these response is possible

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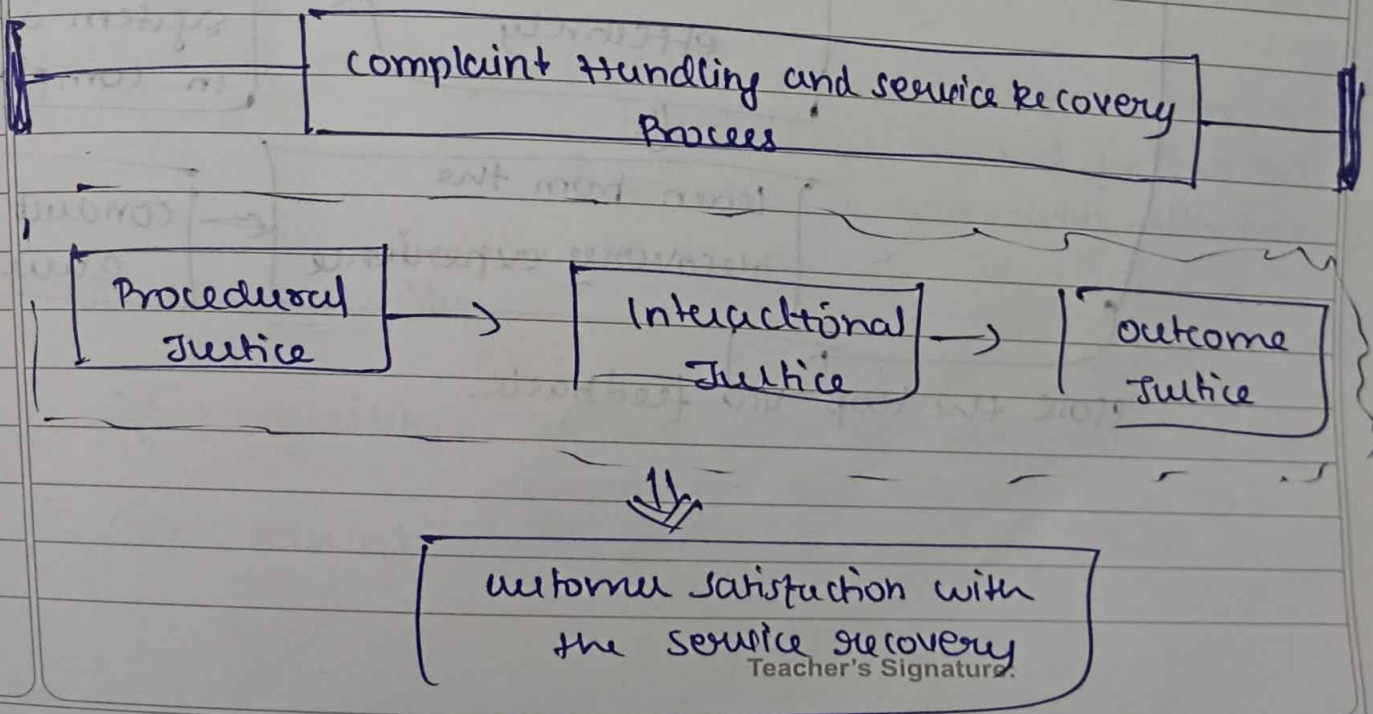
understand to customer response to service failures

- why do customer complain?
  - → obtain compensation
  - → vent their anger
  - → help to improve the service
  - → reasons.
- what proportion of unhappy customers complain?
- why don't unhappy customers complain?
- who is most likely to complain?
- where do customers complain?
- what do customers expect once they have made a complaint?
  - → Procedural, interactional, outcome justice.

Three dimensions of percieved fairness in service recovery.



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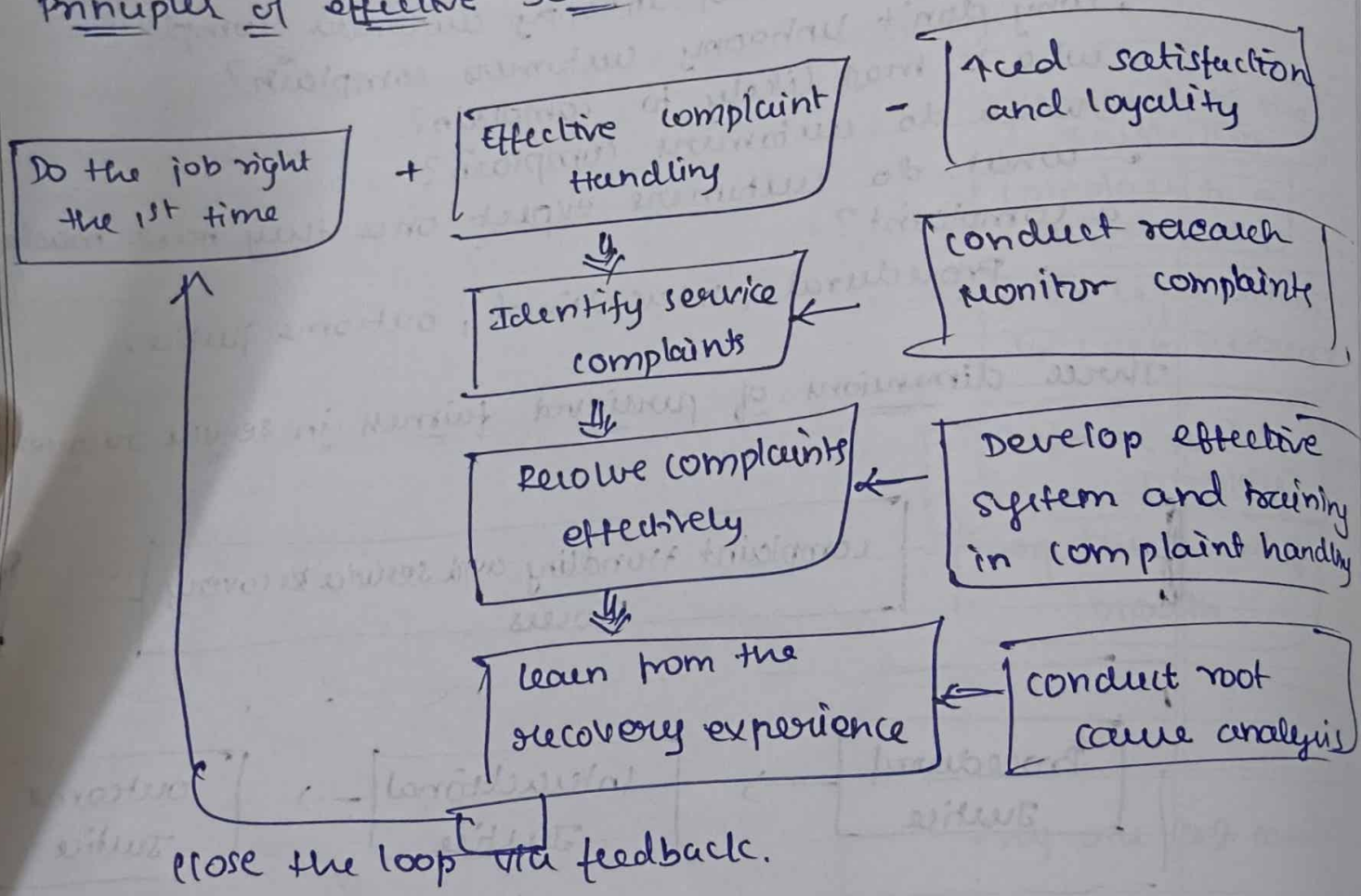
customer responses to effective service recovery.

Service recovery -> plays a crucial role in achieving customer satisfaction by testing a firm's commitment to satisfaction and service quality.

-> Impacts customer loyality and future profitability.

Principles of effective service recovery systems



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Strategies to reduce customer complaint barriers:

complaint Barriers for dissatified customers	Strategies to reduce these Barriers.
→ Inconvience → Doubtful pay off → unpleasantness	→ Make feedback easy and convenient → Make feedback experience Hve.

1. Nature of service and service encounter.

* Modern economy, accounting for a significant share of GDP and employment worldwide.
* services are intangible, perishable and often require direct interaction b/w the provider and the customer.

Definition of service: services are activities, benefits, satisfactions offered for sale or provided in connection with sale of goods.

Key characteristics.

a) Intangibility → service can't be seen, tasted, felt, heard or smelled b4 purchase.
Eg: Education, legal advice, medical treatment.

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b) Inseparability → services are typically produced and consumed simultaneously. The provider and consumer often have to be present together for the transaction to occur

Eg: A haircut requires both the barber and customer to be present at same time.

c) variability (Heterogeneity) → service quality may vary depending on who provides them, when, where and how.

Eg = same hotel may offer diff. levels of service quality

d) Perishability → services cannot be stored for later use or sale.

Eg:

e) Lack of ownership → service don't result in ownership of anything.

Classification of services :-

- Consumer services → provided directly to individuals
- Business services → " " to org.
- Public services → " " govt.

Eg: Banking, Transportation, Hospitality

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Service encounter:

A service encounter is the moment of interaction btw the customer and the service provider, often reffered to as moment of truth.

Elements of service encounter:

customer → The receiptant of the service.
Service provider → the employee (or) system delevery the service.
Delivery system → the processes and tech. enabling the service
Physical Evidence → Tangible that helps customers evaluate the service.

Types of service encounters:

a) Face-to-Face encounters → Direct, personal interaction btw customer and provider.
Eg: Dining at a restaurant, consulting a doctor.
b) Phone encounters → Interaction occurs over the telephone.
Eg: customer calling a call center for support.
c) Remote → No direct human contact, interaction through tech.
Eg: using an ATM, online banking,

Importance of service encounters:

1) First impression and moments of truth.

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↳ Building customer relationships

↳ service quality perception

Managing service encounters.

* Employees must be well trained, and empowered to resolve issues on the spot

Eg: A hotel receptionist who handles a guest complaint efficiently can turn a +ve experience into +ve one

Eg: Travel and tourism, Healthcare, Banking, Retail.

challenges in service encounters.

* Managing customer expectations and emotions
* Ensuring consistency across multiple encounters and channels.
* Training employees to handle difficult situations and diverse customer needs.

Strategies

* Invest in employee training and empowerment
* use technology to streamline process.
* provide self-service options