Hypothesis Generation

What is Hypothesis Generation?

- Listing Down factors that might affect the target variable

When should we do Hypothesis Generation?

Should hypothesis generation be done before looking at the data or after looking at the data we have?

Hypothesis Generation should always be done before looking at the data

Why?

Makes sure you think outside of what is available.

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Hypothesis Generation

Product features	Time Based features	Store feature
Which product was sold?	When was the product sold?	Where was the product sold?

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Hypothesis Generation

Product features

Which product was sold?

- **Product type/ Category:** Whether its a

  frozen pizza, cereals, pretzels etc.

Hypothesis Generation

Product features

Which product was sold?

- Product type/ Category

- **Packaging:** Packed in a plastic or cardboard box etc.

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Hypothesis Generation

Product features

Which product was sold?

- Product type/ Category

- Packaging

- **Product Size:** Small/ Large size of product based on quantity

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Hypothesis Generation

Product features

Which product was sold?

- Product type/ Category

- Packaging Quality

- Product Size

- **Price of Product:** May vary based on manufacturer, packaging etc.

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Hypothesis Generation

Product features

Which product was sold?

- Product type/ Category

- Packaging Quality

- Product Size

- Price of Product

- **Company:** Product Brand/Manufacturer

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Hypothesis Generation

Product features

Which product was sold?

- Product type/ Category

- Packaging Quality

- Product Size

- Price of Product

- Company

- **Manufacturing Date:** Older products have

  less chance of selling

Hypothesis Generation

Time Based features

When was the product sold?

- **Offer Applicable**: Discounts/ Offers

Hypothesis Generation

Time Based features

When was the product sold?

- Offer Applicable

- **Product Promotion:** Special Banners for product promotion in store

Hypothesis Generation

Time Based features

When was the product sold?

- Offer Applicable

- Product Promotion

- **Holiday Season?**: Demand may be higher during holidays

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Hypothesis Generation

Store features

Where was the product sold?

- **Store Location:** Store at city centre, near a society, outskirts etc.

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Hypothesis Generation

Store features

Where was the product sold?

- Store Location

- **Size of Store:** Larger store has more

  product variety and higher demand

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Hypothesis Generation

Store features

Where was the product sold?

- Store Location

- Size of Store

- **Marketing/ Banners/ Pamphlets:** Store

  popularity

Hypothesis Generation

Store features

Where was the product sold?

- Store Location

- Size of Store

- Marketing/ Banners/ Pamphlets

- **Competition:** High competing stores in

  the area will affect the demand