* Constructs of CE :-

→. **Customer involvement :-**
   ↓
  Needs, value, interests

Importance, relevance, value, excitement, appeal, want, & benifits

help in decision-making process.

relation with satisfaction & emotion. (also actions)

→. **Customer experience :-**
   ↓
cognitve, affective, emotional, social-media response to product

sensorial, emotional, cognitive, pragmatic, lifestyle, relational

promotion, price, location, merchandise

→. **Customer satisfaction :-**
buying, referral, talk on, feedback
again   social
     media

linked to firm profit & shareholder value.

→ **Customer loyality :-**

favourable attitude towards brand

loyality is repeted purchase.

→. **Customer trust :-** Attitude towards brand { found in services }

→. **Customer commitment :-** Depth attitude towards brand.
           (time & money spending).

→ **Customer brand value :-**

Awareness, image, trust, loyality, affect, intention, advocacy, price

* Measures of CE construct / Variable of conceptual framework :-

→ **Emotions :** 4 point scale : "Not at all likely" to " Very likely"

Scale : anger, discontent, worry, sadness, fear, shame, envy, loneliness, romantic love, love, peacefulness, contentment, optimism, joy, excitement, surprise.

→ **Contribution :** purchases, referrals, influence & knowledge.

→ **Experience :** peace of mind, moments of truth, outcome focus.

→ **Brand value :** brand knowledge, brand attitude, intention of purchase, brand behavior

Awareness, image, trust, affect, loyality, advocacy, price, ..

→ **Involvement :-**

→ **Convenience :-** Decision, access, benefit, transaction.

→ **Satisfaction :-**

satisfaction   emotions   In categorical
                              manner of products

                  CE   In month
                              day/year
                              wide   Predicting contribution
                                        of CE for next year &

Components of CE   add   Analyze tangible &
Contribution   festivals   Intangible
                    sale   benefits.
                    kinds
                    details   using constructs of
     Direct   Indirect   CE.
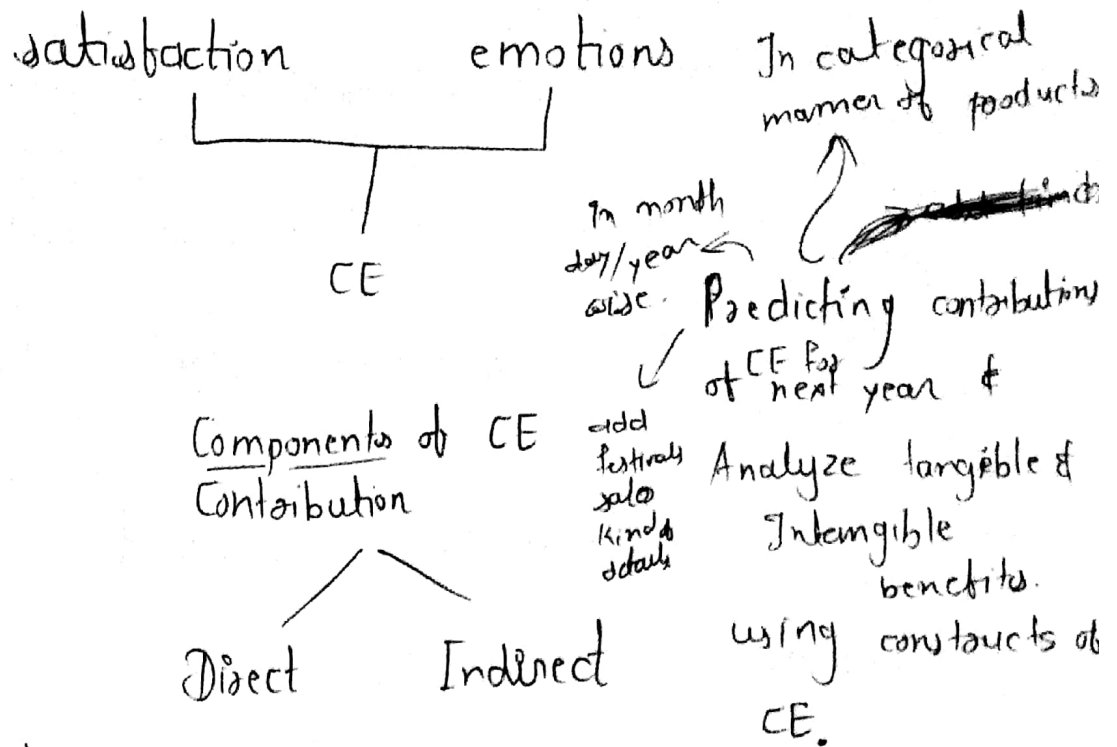
*. Theorical support

Contribution

Anteredents (Satisfaction & Emotion)

consequences (tangible & intangible outcomes)

Convenience

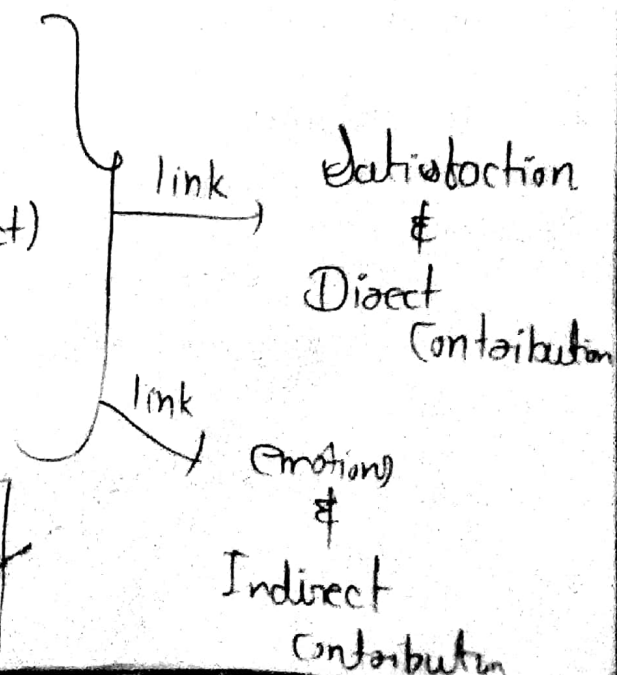Nature of firm (B2B & B2C)
type of industry (service vs. product)   link   Satisfaction
value of brand (↑, ↓)   &
level of involvement (↑, ↓)   Direct
                                                          Contribution

CE gain by different Strategies.   link   Emotions
                                                        &
                                                    Indirect
                                                    Contribution

emotions = +ve / -ve

satisfaction = "How do you define satisfaction!

Customer
Engagment
— [Direct => purchase made

Indirect => Reviews / Rating / Feedback.

Customer Engagement

* Constructs related to CE :-

=>. Customer Involvement:-

Person's perceived relevance of the object based on inherent needs, values & interests.

7-point semantic differential scale : importance, relevance, value, excitement, appeal, want & benefits of the product.

This, motivating customer to seek info that may be used to
can be viewed as,
manage & moderate risk in decision making.

It would occur before the customer makes a purchase.

It help customers, set expectations which affect satisfaction, emotion, & actions.

=>. Customer Experience :-
customer's cognitive, affective, emotional, social & physical response.

6-point : sensorial, emotional, cognitive, pragmatic, libestyle, relational.

It is outcome of firms actions, Not customer actions

Attributes

Complete review data:

reviewerID :

asin :

reviewerName :

helpful :

reviewText :

overall :

summary :

unixReviewTime:

reviewTime :

Metadata:

asin :

title :

price:

imUrl :

related :

salesRank :

brand :   :

categories:

Visual Features:

asin (10 character)

features (4096 floats)

Note:- Should focus on
categories instead
all data.

helpful
review
overall rating
time

price ┌─ also bought
related ├─ also viewed
        ├─ bought together
salesrank └─ buy after
                 viewing

brand

category

Dataset
— × —

142.8 M reviews (May 1996 - July 2014)

REVIEWS :- ratings, text, helpfulness, votes

METADATA :- descriptions, category info., price, brand, image-features, links (also viewed / also bought graph).

* Small part of dataset (which is public) :-

K-cores :- (same as full data's structure) => Only 5-cores means, each users & items have 5 review

↑

REVIEWS kind of, but with all attributes.

Ratings only :- No metadata & review
Only user, item, rating, timestamp.

* Complete review data:-

raw review data (20 Gb) - 142.8 M reviews (duplication)
user review data (18 Gb) - 83.68 M (removed duplication !)
product review data (18 Gb) - duplication removed.
ratings only (3.2 Gb)
5-core (9.9 gb)

Aggressively deduplicated data (18 Gb) } preferable in Sentiment Analysis

3×1 dim   pattern   input

[1 50 1] $\begin{bmatrix} [1] \\ [50] \\ [1] \end{bmatrix}$ [None, 2]

[None, 1, 2]

None, 50, 2   2d = [None, 1]

Even waiting more reviews can be one of the mecasure of CE
Salo & repeat sales.

Advocacy

How long customer is engaged to company?

Customer Engaged compare to avg. customer (Not engaged)

Engaged / Non-engaged customer spending.

Variable used in conceptual framework are used to
measure the constructs of the CE. [We can create model
for all in one prediction]

How much time customer invest to find product?
(their convenience)

Time-varying effects of satisfaction & Emotions on customer
behavior.

Analysis of emotions & satisfaction over diff. countries

Manual analysis:-

CE = f (antecedents)

⬇ depends on

constructs
of
CE

⬇ measured by

?

__Variables__

How many products have
reviewed? & how many
reviews per item? find
Avg. reviews also.

How many reviews per month
we've?
Gender from Names
unix Time / pypi holidays.

                    days.
              week ↙
helpful Per month data attributes / per category   check through price
                                                      reviews only all
                                                      not only #

# of reviewer   price(avg)& helpful rating   salesrank   influence by # of
                                                            related   holiday

per category   reviewer [how many   Gender Week brand   Appeal
[matrix]   experience [reviews he   scale   [9]
                           [has written]   [find
                 avg [in 1 scale]   brand's
                                                           avg. price]

# of reviews   senti + reviewer + price
                            exp
                    and all.