

CHAPTER VI
CONCLUSION,
RECOMMENDATION,
MANAGERIAL
IMPLICATIONS,
LIMITATION

6.1 CONCLUSION:

Data from thousands of respondents is analysed to solve all the research objectives and to check research hypotheses. Overall results are mentioned below. Model outcomes are already highlighted in previous chapter, so they are not repeated here.

List of objectives:

1. To study the most impactful attitudinal antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.
2. To study the most impactful behavioural antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.
3. To study the most impactful situational antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.
4. To design decision making models of brand loyalty towards FMCG products for both traditional trade and modern/e-comm trade
5. To design machine learning/statistical process which can help retailers and manufacturers to know the status of brand loyalty for their brands on real times basis.

Findings for each of the combinations evaluated so far:

6.1.1 Urban – MT/Ecomm: Shampoo

Attitudinal Factors: (Objective 1)

- Brand trust, brand equity, brand image, brand reputation, centrality are the factors which indicates buyer of these category are more concern with the overall historical and current performance of given brand. Loyalty towards a particular brand is largely dependent on the overall reputation of brand.
- Customer satisfaction, brand performance, functional values are the factors which indicates, buyers are more concern with the output (satisfaction) that they are going to get by using given product.
- They are also giving importance to features like opportunity to compare products and clarity of the product. These features are only available in MT/Ecomm markets.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchases are the key features to define behavioural factors.
- Most impactful is tried out brands. Which indicates how much a buyer is trying various options to select the best fit for his/her family.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.1.2 Urban – MT/Ecomm: Washing Powder

Attitudinal Factors: (Objective 1)

- Brand affect, brand trust, brand relevance, brand image, are the factors which indicates buyer of these category are more concern with the overall historical and current performance of given brand. Loyalty towards a particular brand is largely dependent on the overall reputation of brand.
- Customer satisfaction, brand performance are the factors which indicates, buyers are more concern with the output (satisfaction) that they are going to get by using given product.
- They are also giving importance to features like habit, accessibility, price worthiness. This could be because washing powder is a product that people are using on daily basis with high amount. So accessibility of brand and price always make difference while selecting the given brand.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands are the key features to define behavioural factors.
- Most impactful is tried out brands. Which indicates how much a buyer is trying various options to select the best fit for his/her family.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.1.3 Urban – MT/Ecomm: Soft Drink & Chocolate

Attitudinal Factors: (Objective 1)

- Brand credibility, brand equity, brand relevance, brand image, are the factors which indicates buyer of these category are more concern with the overall historical and current performance of given brand. As category is related to internal consumption people are more cautious about track record of a brand.
- Habit, culture, family influence, functional values, assortment/gift pack etc. are key features of the model. This indicates apart from taste/flavours there are many other factors responsible for the loyalty of products. If assortment is available in one brand over other brand, then it could be a driving factor.
- Moreover, chocolate is impulse category so other low influencing factors can also create impact in some cases.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchase are the key features to define behavioural factors.
- Most impactful is repeat purchase. Which indicates how long buyer is sticking to the same brand.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.1.4 Urban – TT: Shampoo

Attitudinal Factors: (Objective 1)

- Brand affect, brand attitude, brand market share, are the key factors. All these factors indicate buyer need to ensure better track record of the brand.
- Customer satisfaction and emotional value are the factors indicate buyer need to ensure overall satisfaction associated with the given brand.
- Accessibility, habit, and commitment are the factors that shows, buyers are used to show loyalty towards those products which are easily available nearby stores.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchase are the key features to define behavioural factors.
- Most impactful is repeat purchase. Which indicates how long buyer is sticking to the same brand.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case. This could be because in Urban areas things are easily available even during difficult times.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.1.5 Urban – TT: Washing Powder

Attitudinal Factors: (Objective 1)

- Discount, celebrity influence, advertising, personal selling are key features of buyers who buy washing powder from TT stores. Unlike MT/Ecomm pattern, buyers mostly prefer small units of packets. So trying different brands and controlling overall budget is the key purpose behind this.
- Availability is another important point as buying is taking place from TT stores which may not keep all small, big brands.
- Relationship proneness and clarity are another important feature of these buyers.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchase are the key features to define behavioural factors.
- Most impactful is repeat purchase. Which indicates how long buyer is sticking to the same brand.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case. This could be because in Urban areas things are easily available even during difficult times.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.

6.1.6 Urban – TT: Soft Drink & Chocolate

Attitudinal Factors: (Objective 1)

- Brand image, brand equity, brand attitude, brand awareness, brand relevance are all factors which indicates, buyers of this category are more concern about overall performance of products. There is direct relationship between these variable and client perception as these are all food & beverage brands which we consume internally.
- Involvement, perceived value are few features which indicates buyers are more concerned about overall satisfaction that they are going to get from product.
- Habit, celebrity influence are the factors that impacts overall buying behaviour of buyers of this category.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchase are the key features to define behavioural factors.
- Most impactful is repeat purchase. Which indicates how long buyer is sticking to the same brand.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case. This could be because in Urban areas things are easily available even during difficult times.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.1.7 Rural – TT: Shampoo

Attitudinal Factors: (Objective 1)

- Availability is the key factor for buyers of this category. There is also strong reason for that because in Rural areas availability of the product plays vital role in decision making. This in a way define brand loyalty.
- Commitment is also an important factor. In many cases, once buyer is committed to a certain brand then shopkeeper must have to keep those brands.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchase are the key features to define behavioural factors.
- Most impactful is repeat purchase. Which indicates how long buyer is sticking to the same brand.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.1.8 Rural – TT: Washing Powder

Attitudinal Factors: (Objective 1)

- Total family members, family type and head of the family also create impact on overall purchase decisions.
- Brand awareness, commitment and functional value are another important factor which indicates, buyers are more concern about overall performance of products and historical track record.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchase are the key features to define behavioural factors.

- Most impactful is repeat purchase. Which indicates how long buyer is sticking to the same brand.

Situational Factors: (Objective 3)

- Situational factor is very important as there are many instances when brand is out of stock in each area. In such situations buyer must switch to another brand.

Decision Making Model: (Objective 4)

- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.1.9 Rural – TT: Soft Drink & Chocolates

Attitudinal Factors: (Objective 1)

- Brand credibility, brand attitude, brand awareness, are the factors which indicates buyer of these category are more concern with the overall historical and current performance of given brand. Loyalty towards a particular brand is largely dependent on the overall reputation of brand. Also, these products are for internal use so buyers are naturally more cautious while buying them.
- Though buyers are more concern with historical performance of brand still Accessibility, functional value, social value etc. are making bigger impact on buying decision as all brands are not easily available around locality.
- Celebrity Influence also plays vital role in developing faith in a particular brand.

Behavioural Factors: (Objective 2)

- Tried out brands, acceptable brands and repeat purchase are the key features to define behavioural factors.
- Most impactful is repeat purchase. Which indicates how long buyer is sticking to the same brand.

Situational Factors: (Objective 3)

- There are no situational factors identified for this case. This could be because in Urban areas things are easily available even during difficult times.

Decision Making Model: (Objective 4)

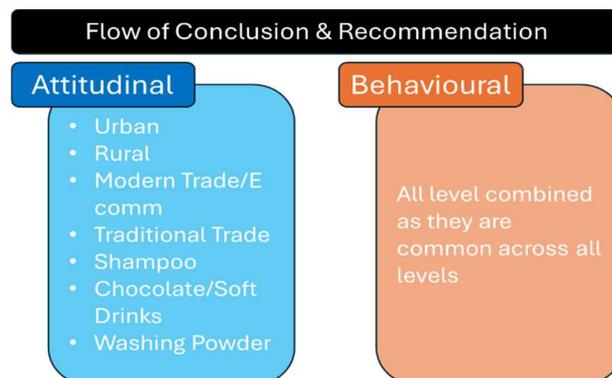
- Model fitted using Structure Equation Model (SEM) process. It includes both Behavioural and Attitudinal factors. Details are available in Data Analysis chapter.

Set up Machine Learning process: (Objective 5)

- Based on identified factors from SEM process, machine learning process set up using Support Vector Machine algorithm.
- Algorithm can further help retailers to classify their customers in various categories like brand loyal, disloyal, and neutral. All three categories are again based on both attitudinal and behavioural features.

6.2 RECOMMENDATION:

Here I am trying to establish connection between theoretical work of my research with the industrial implications and the major benefits that all stakeholders are going to get.



Urban Markets

Obj 1: To study the most impactful attitudinal antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Impacting Attitudinal Variable	Conclusion	Recommendation
Customer satisfaction	<ul style="list-style-type: none"> Very important feature for Urban market As consumers have various choices available in the form of Global, National and Local brands. 	<ul style="list-style-type: none"> Conduct survey to know about NPS (Net Promotor Scores) and CSAT (Customer Satisfaction) score. This also gives idea about dissatisfied customers.
Brand Relevance	<ul style="list-style-type: none"> Separate groups are emerging due to changing lifestyle. People are becoming health conscious demanding for customize products. 	<ul style="list-style-type: none"> Regular Coca Cola along with Diet Coca Cola, Sugar Free Ice Cream, separate deodorants for male and female are good examples of Brand Relevance.
Brand Equity	<ul style="list-style-type: none"> As multiple brands are accessible through MT and E-comm, brand equity is crucial for manufacturers. 	<ul style="list-style-type: none"> Invest in marketing. Brand Equity directly results from it. Maggi is very strong brand in India. Whatever flavors/product they produce under that name becomes popular.
Brand Image	<ul style="list-style-type: none"> Set of beliefs, ideas and impression together defines brand image which is crucial to define loyalty. Brand Image can very quickly turn negative as word-of-mouth spreads very quickly due to various social media platforms. 	<ul style="list-style-type: none"> Manufacturers can conduct market survey, understand the target audience and can develop unique brand identity. Coca Cola is the great example of it. 7.1 billion people can identify Coca Cola which is 94% of the earth's population.

Impacting Attitudinal Variable	Conclusion	Recommendation
Habit	Even after having many options under given category, set of buyers are showing habitual behaviour towards popular brands in Urban areas.	<ul style="list-style-type: none"> Adding different flavors, different packaging and sometimes promotional events help to retain habitual customers. Colgate Vedshakti is an example to retain such customers against competition from Patanjali Products.
Brand Trust	Brand Trust can not be created over night. Building and retaining brand trust is very essential specifically in Urban market due to high level of competition.	<ul style="list-style-type: none"> Don't make promises you can't keep. Good examples of over commitment are, Detergent. Make sure you understand your customers
Brand Performance	34% eye new products, 40% seek innovation (NielsenIQ – 11 Dec 2024 – ET)	<ul style="list-style-type: none"> Brand Differentiation. After performing successful market research is very essential. Herbal products, Aata noodles and biscuits etc. can help to retain such consumers
Functional Value	As urban population is moving upwards in terms of their lifestyle, they demand for more functional value within products.	<ul style="list-style-type: none"> Premium products and larger SKUs are generally available in MT & E Comm. Availability of such products in TT channels can help to retain such buyers.

Rural Markets

Obj 1: To study the most impactful attitudinal antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Impacting Attitudinal Variable	Conclusion	Recommendation
Brand Awareness	<ul style="list-style-type: none"> Rural market is dominated by Traditional Trade which has little scope for items to put in display and allow consumers to recall them. 	<ul style="list-style-type: none"> Manufacturers can retain brand awareness through News Papers, handbills, posters etc. about specific brands.
Commitment	<ul style="list-style-type: none"> It is somewhat like habit. 	<ul style="list-style-type: none"> Adding different flavors, different packaging and sometimes promotional events help to retain commitment. Tin packs are more favorite than plastic/paper packs.
Functional Value	<ul style="list-style-type: none"> Major difference between Urban and Rural functional value is rural buyers are focusing on optimal outcome of basic features of the product whereas urban buyers focus on advance features. 	<ul style="list-style-type: none"> Design a product which can provide basic utility with maximum satisfaction and lower price. Regular availability of product is also very important.
Brand Attitude	<ul style="list-style-type: none"> Positive attitude towards brand ensure brand loyalty in most of the cases. In many cases regional/national brands are very popular in rural areas. 	<ul style="list-style-type: none"> Ghadi Detergent is a classical example of this. This Indian brand became so much popular in rural areas due to high diffusion in rural markets.

Rural Markets

Obj 1: To study the most impactful attitudinal antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Impacting Attitudinal Variable	Conclusion	Recommendation
Family Type	<ul style="list-style-type: none"> Family type is very vital in rural areas as joint family pattern is still very common. Big sized families have different demand pattern. 	<ul style="list-style-type: none"> Quantity discounts or promotional packs can create major impact on sales volumes Need to consider tough competition from local manufacturers as they have better reach to Rural areas.
Head Of The Family	<ul style="list-style-type: none"> Still today in many parts of country, head of the family is key decision maker. Mostly head of the family is Father, if not then Mother. 	<ul style="list-style-type: none"> Surprisingly, Father is also contributing to the decision of buying washing powder. In all advertisement campaign manufacturers should consider this fact.
Total Family Members	<ul style="list-style-type: none"> Vary much associated with Family Type 	<ul style="list-style-type: none"> Same as family type
Social Value	<ul style="list-style-type: none"> Apart from Family, other members like friends, relatives are making impact on buying decision. 	<ul style="list-style-type: none"> Manufacturers can influence opinion leaders through News Papers, handbills, posters about specific brands.

Modern Trade/E Comm

Obj 1: To study the most impactful attitudinal antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Impacting Attitudinal Variable	Conclusion	Recommendation
Brand Equity	As per previous table	<ul style="list-style-type: none"> To win over other brands put your brands in the shelf parallel to buyers' eyes. "Eye level is buy level". Pay for your brands to appear on first page on E Comm portal
Brand Image	As per previous table	<ul style="list-style-type: none"> Eye catcher self filled with all brands from various categories belonging to same manufacturer.
Brand Relevance	As per previous table	<ul style="list-style-type: none"> Keep Regular and Customize products in same shelf to get more attention. E.g. Regular Coke and Diet Coke together
Customer Satisfaction	As per previous table	<ul style="list-style-type: none"> Quick survey can be conducted using pen & paper or digital
Brand Performance	As per previous table	<ul style="list-style-type: none"> Offering same quantity at lower price, Promotional pack with gift etc.
Brand Trust	As per previous table	<ul style="list-style-type: none"> On E Comm platforms genuine customer reviews should be available. Turn negative reviews into positive ones by providing consistent quality.
Functional Values	As per previous table	<ul style="list-style-type: none"> Videos showing more varied ways of using given product can help. Online platform for E comm and TV screens in physical setup can help. E.g. different ways of using sauces, spices etc.

Traditional Trade

Obj 1: To study the most impactful attitudinal antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Impacting Attitudinal Variable	Conclusion	Recommendation
Brand Attitude	As per previous table	<ul style="list-style-type: none"> Omni channels can help to achieve this. Brands can be kept in various small big channels. Petrol station, restaurants, kiosks are the places to cover.
Brand Awareness	As per previous table	<ul style="list-style-type: none"> Stickers, hanging charts can help to improve awareness.
Commitment	As per previous table	<ul style="list-style-type: none"> Most promising way to ensure commitment in traditional trade is discount, extra volume or any other promotional scheme.
Functional Value	As per previous table	<ul style="list-style-type: none"> Extra volume or discounted price with consistent quality can help a lot.
Celebrity Influence	<ul style="list-style-type: none"> Sometimes due to unavailability of internet, visual media and posters with celebrity influence can help to advertise product. 	<ul style="list-style-type: none"> Posters and sign boards with celebrity photos can help.
Habit	<ul style="list-style-type: none"> Habitual buying in villages is sometimes real and sometimes due to no other options 	<ul style="list-style-type: none"> Adding different flavors to the existing brand. Rewarding purchase with gift or discount.

Attitudinal Features

Obj 1: To study the most impactful attitudinal antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Shampoo

Commitment, customer satisfaction

- Users are sensitive about their hair, so herbal products with 3 in 1, 5 in 1 features can help
- Herbal shampoo market can grow by 9.5% till 2030 (Mordor Intelligence Research, 2024)
- Buyers are now investing in high quality products specifically in Urban areas
- No sulphate formulation can help

Soft Drink & Chocolate

Brand Attitude, Brand Awareness, Brand Equity, Brand Image, Brand Relevance, Habit

- 100% real juices, Plant based juices, Ready to drink Tea and Coffee are the latest trends that manufacturers should follow.
- Focus should be on Energy and Sports drinks as they are becoming more popular than Carbonated drinks.
- Consumption at home is still very high than consumption out of home. Stock Keeping Units (SKUs) should be design accordingly.
- Chocolate as a gift trend is becoming popular. Gift packs should be available all months.
- Market for Sugar Free chocolate with natural content is still untapped.

Washing Powder

Brand Image, Brand Performance, Brand Relevance, Brand Trust, Functional Value, Family Type, Head Of The Family, Total Family Members

- Environment friendly products are just initiated. HUL is first with “Love Home and Planet” brand
- Subsidies on Eco friendly products can help companies to produce Ecofriendly products
- Counterfeit and low-quality products can impact brand image of the leading brands
- Subscription based models for detergent: to ensure regular delivery, convenience of consumers and ensuring consistent revenue
- Extensive distribution network and availability of product is key factor

Behavioural Features

Common for all levels

Obj 2: To study the most impactful behavioral antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Impacting Behavioral Features	Conclusion	Recommendation
Repeat Purchase	<ul style="list-style-type: none"> • Repeat purchase is most promising behavioural feature that gives idea about overall market for the given brand. • In most of the cases repeat purchasers are brand loyal, however there are exceptions as well. • In case if customers are not able to afford switching cost or do not have any other options available then they continue to buy same products. 	<ul style="list-style-type: none"> • Manufacturers should rely on it as it is true indicator of loyalty in most of the cases. • Easy to collect data in MT/E Comm. Manufacturers can provide scanners to TT store and collect this data easily. • One time setup cost and maintenance cost need to be considered. • Coding issues are significant in this method of data collection.
Tried Out Brands	<ul style="list-style-type: none"> • Good measure to gauge loyalty of customer towards one or many products of the same category. • Number of tried out brands in each period are more then it indicates disloyal customer. 	<ul style="list-style-type: none"> • Data can be derived from Repeat Purchase variable • No separate price/infrastructure involved
Acceptable Brands	<ul style="list-style-type: none"> • It gives idea about how many brands a customer accepts in all favorable/unfavorable conditions 	<ul style="list-style-type: none"> • Manufacturers should collect this data at appropriate frequency. • Very useful to know spurious loyalty towards given product.

Common for all levels

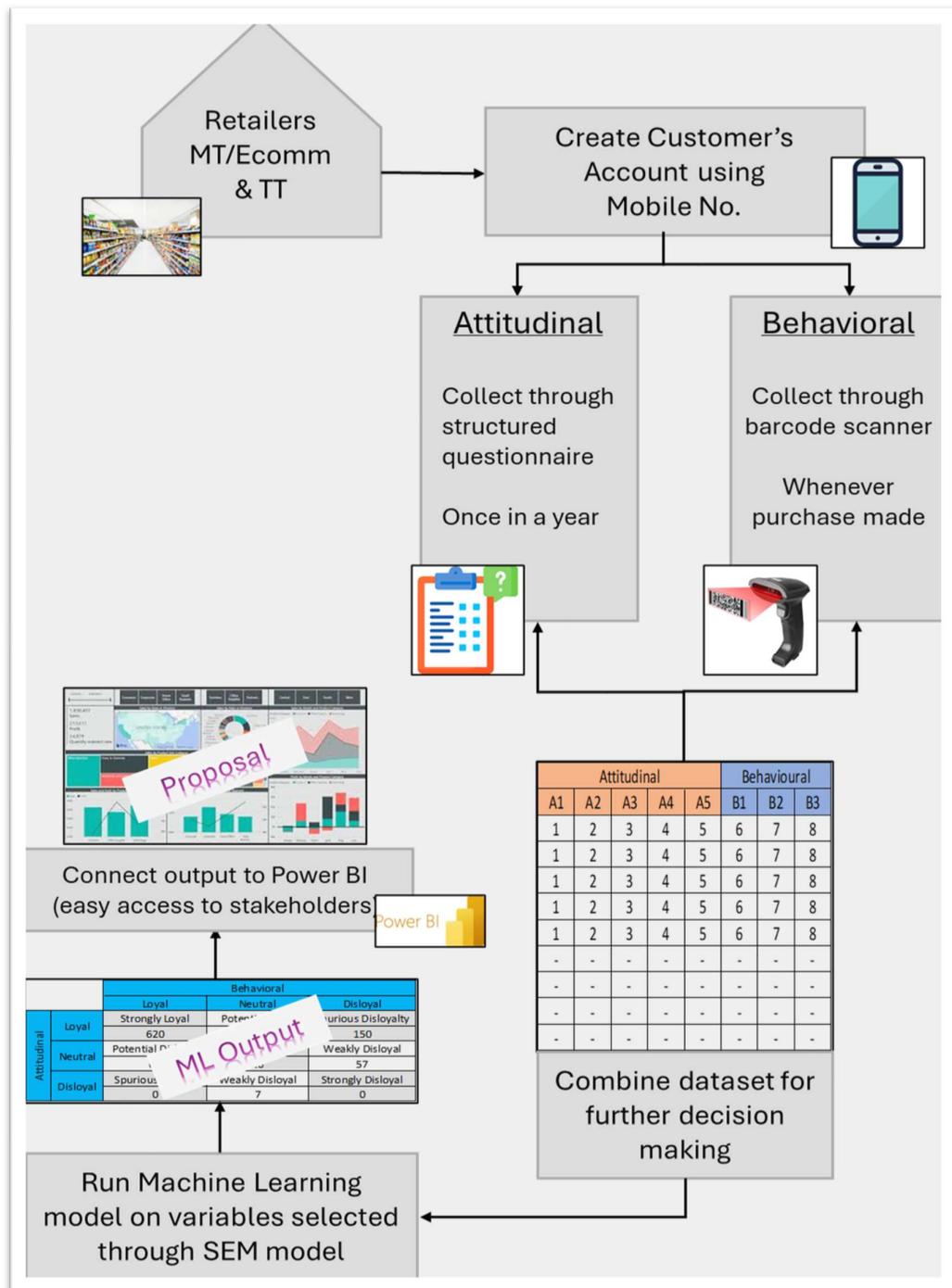
Obj 3: To study the most impactful situational antecedents defining brand loyalty of buyers in traditional and modern/e-comm trade.

Impacting Situational Features	Conclusion	Recommendation
Availability	Not identified as significant variable in any of the model	-
Situational factors	Not identified as significant variable in any of the model	-
Personal Selling	Not identified as significant variable in any of the model	-

Based on nine models developed for various combinations of Locality – Market – Category below are the key recommendations that can help below stakeholders in the given order.

1. Retailers – both MT/Ecomm and TT. For MT/Ecomm it is easy as they already have scanning system placed on the billing counters. TT store owners need to invest some amount to have computer system and scanning machine attached to the system.
2. Manufacturers – in current setup manufacturers are spending huge amount to get idea about loyalty of their products and to design strategies according. Going forward retailers can help them to make this decision just by clicking one or two buttons on their mobile.
3. FMCG consumers – consumers will also get indirect benefits in the form of discounts, promotional events, value addition to product from manufacturers. This must happen as manufacturers will get clarity around loyalty status of their and their competitors' product. So, they will try to adjust their product strategy accordingly.

Figure 6.1 Implementation of model – process flow for retailers and manufacturers



6.3 MANAGERIAL IMPLICATIONS AND CONTRIBUTION TO THE FIELD OF KNOWLEDGE:

- The most important managerial implication and contribution to knowledge is development of nine models that can be used further to measure brand loyalty.

Sr. No.	Model
1	Urban – MT/Ecomm - Shampoo
2	Urban – MT/Ecomm – Washing Powder
3	Urban – MT/Ecomm – Soft Drink & Chocolate
4	Urban – TT - Shampoo
5	Urban – TT – Washing Powder
6	Urban – TT – Soft Drink & Chocolate
7	Rural – TT - Shampoo
8	Rural – TT – Washing Powder
9	Rural – TT – Soft Drink & Chocolate

- Based on above models, Machine Learning algorithms designed that are capable of classifying buyers into 9 major categories based on 3 levels of both attitudinal and behavioural antecedents. These models can be trained further and utilised for industrial purposes. With addition of new data all Machine Learning models will become more stronger in terms of correct classification.

6.4 LIMITATIONS OF RESEARCH:

- Machine Learning algorithms are becoming more efficient with huge amount of data. In future if we add more observations to the model, it will become more efficient in terms of correct classification of buyers.
- Current research is only up to category level and not extended up to brand level.

6.5 FURTHER SCOPE FOR RESEARCH:

Include Consumer Pannels

At corporate level include Consumer Pannels to have more robust attitudinal data.

Include Other Categories

Categories like health and wellness, paper products, baby care etc. to be included.

Omni channels can be studied

Product sold through Hotel, Restaurant, Petrol Pump or mobile vendors need to be considered.

All these additions required significant budget as data collection is costly.