

# **Assessment Framework for Consumer Purchase Decision in Supermarket**

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## **Abstract**

In recent times the community is facing an alarming threat from the repeated pandemic, which has changed our lifestyle in many ways. This study assesses the fact that how the mind set of customers buying decisions in supermarkets for their day-to-day consumables and essential products have changed because of this pandemic. This change in behavior is found by identifying some factors that are related to the consumers buying behavior in supermarkets and then deeply related to the pandemic. The aim of this paper is to develop assessment framework for consumer purchase decision in supermarkets using multi-grade fuzzy approach. The framework is developed using four enablers, twelve criteria and twenty-four attributes. Important Performance Analysis (IPA) is conducted to find the gaps where the case-supermarket lagged which in turn could attract the customers to increase foot traffic and sales.

## **Keywords**

Assessment framework; consumer purchase decision; supermarket; multi-grade fuzzy; IPA.

## **1. Introduction**

Consumer behaviour helps us learn how an individual customer group of people or set of people in an organization purchase identify use and induce proposal for products and services to fulfil the needs and wants of the consumer. It depicts the fundamental progress for the activities based on the measures of the consumers in the marketplace. This study also presumes that the consumers are the major role players in the marketplace. The outlook of this theory presumes that the consumers take part in different parts in the marketplace where they belong originating from the detail's contributor beginning from the consumer to the spender and to the disposer the consumers where part in these activities actively in the decision process. The consumer behaviour as the totality of consumers where the decisions are made with respect to the acquisition usage (Hoyer and MacInnis 2010) and disposition of products services time take, and the ideas generated by the human decision-making process.

The purchase selection process is also called as the shopper selection process, the purchase decision of a product helps the marketers to analyze and identify the consumers complete journey from knowing a product. The mandatory requirement for marketing and sales is based on the realization of the purchaser's buying decision process. The purchaser or the consumer's problems should be fulfilled by setting a marketing plan which enables them and also convinces them to buy the product or service that meets their needs or wants. The buyer's selection criteria contain problem identification, analysing and evaluating the problem, search recognition and then buying decision. The need or want of a particular problem helps the consumer identify the buying process, which is initiated either by external or internal stimuli. The satisfaction and dissatisfaction of a buyer results in their later purchase behaviour.

Due to the pandemic cause, people started to hoard food from all types of grocery stores and super and hyper markets, this sudden purchase decision by the people caused for sudden and rapid emptying of goods in the particular racks and stalls even though the government has been continuously communicating that, there won't be scarcity for food and commodities for all the people at any point even if there is an extension in the lockdown. Many preceding studies and research had stated that the individuals in community under conditions of instability caused in the society is specifically for both economically and sociologically (Long and Khoi 2020).

The Covid-19 pandemic has actually changed the buying behaviour of people all over the world even in ecommerce platform. Many people who were not a fan of online shopping have actually shifted to online platform during this Covid-19 period. WOM (Word of Mouth) plays a vital role in covering the people's buying decisions, adding to that word of mouth actually helps people in good and bad buying experiments. Though word of mouth

can influence people in buying a particular product or service it actually also has a negative influence from restraining the consumers not to buy a particular product or service. Thus, as stated before word of mouth influences and affects the buying decision (Juliana et al. 2020). Covid-19 has affected the shopping, spending behaviour and also the category and brand preferences. Covid-19 has brought a significant change to this world. Now a day's people lives are changed which brings change to their buying decision in all possible ways where they have started to think differently.

## **2. Literature Review**

Customers buying behaviour in supermarkets and grocery stores involves many cues which refers to selection, consumption and purchase of goods and services based on their needs and wants. This purchase behaviour of the customers is influenced by many factors and characteristics (Ramya and Ali 2016). Being aware of this Covid-19 pandemic there are specific factors in which the customers buying behaviour revolve around. Now-a-days customers prefer to choose the shops and supermarkets to purchase their day-to-day goods or commodities based on certain specific factorial elements. They factors are shop atmosphere, products or consumables, shop infrastructure, service quality. These factors are represented by the customers who come to the shops to purchase their daily commodities. Not only from the customers who purchase but also based on the inputs from the shop workers and employees, where they get to face the questions and the expectations of the shops or store's environment. Hence, these factors are based on the cognitive thinking on which how the people perceive based on the understandings and also based on the past experiences and realities (Sharma 2014).

### **2.1 Shop Atmosphere**

An important enabler in the purchase decision is shop atmosphere. It is formed by a series of factors such as music, smell, colour, sanitation and hygiene. The senses involved in the atmospheric characteristics of store are visual and auditory senses (Sabrina 2014). The consumer purchase decision is based on the influence of the atmospheric conditions of a store. These atmospheric conditions also include the emotions of the consumers while they are shopping in the stores (Helmefalk and Hultén 2017). There are some more factors involved in the purchase decision of an instore, those include the colour of the paintings in the store and the lights used (Cho and Lee 2017). Thus, the atmospheric factors in stores, retail markets and supermarkets have an added advantage resulting in the failure or success of the stores profit or loss (Barros et al. 2019). Considering the fact that hygiene is becoming one of the important factors in the Covid-19 era, cleanliness within the store workers and sanitation is quite important. And distancing being another important element in avoiding the spread that also has to be maintained strictly within the store premises along with the store workers as well the customers.

Now due to the massive outbreak of Covid-19 all over the world, the placement of the products in the stores must be spacious as in making it less prone to disease spread and making the customers less likely to get congested in the aisle while purchasing. There must be proper communication and the instore workers should help the customers in reminding them to maintain the distance and not get carried away while they are in the purchasing process. In this pandemic outbreak, the people are advised to wear masks, use sanitisers and wash their hands continuously at periodical intervals. The stores should also adhere to this and provide proper sanitation facilities where supermarket is one important place where people gather around in huge numbers, hence the instore workers should make sure that the sanitisers are placed at continuous intervals and also should help the customers in insisting them to use the same every now and then as it they keep touching the products in the aisle or in their bays during the purchasing process.

### **2.2 Product or Consumables**

Purchase decision sometimes or most of the times happen due to impulse buying. This happens when the products or consumables in the store are arranged in an attractive way. The elements involved in the attractive arrangements of the products are store layout and the interior display. Usually, consumers who are young are quite often prone to impulse buying decisions where they are mostly unprepared for that kind of a buying pattern. Though buying patterns are given importance there is yet another factor involved in impulse buying behaviour, they are demographic factors (Akram 2016). Some studies have been undertaken to study the mechanism of consumer attention and choice on the product or consumables placements in the shelves or in the aisles in supermarkets. Brand preference, labelling of the product in the bays and aisles were also involved in the purchasing decision of the customer. There was evidence that the consumers were often pushed to purchase more based on the attention and choice by the manner the products are arranged than the planned or goal directed purchasing behaviour (Bialkova et al. 2020).

The features inside the store or supermarket basically produce or create an emotional stimulus to the customers such that they result in sudden purchase decision of a product or a consumable which is called the impulse purchase behaviour (Mohan 2013). This impulse purchase behaviour is also associated to yet another factor called

shopping enjoyment tendency. Impulse behaviour is a factor which is quite widely prevalent in this world for a very long time. To quote an example, the former CEO of Coco Cola, Muhtar Kent stated that 70% of their sales happen due to impulse buying. It is also evident that the customers are intrigued to impulse behaviour by the results of music and light which increases the pleasure while shopping and satisfaction in their shopping experience (Morrison et al. 2011). As a result of Covid-19 it should also be advised to the customers about the trial policy in apparel section, because knowing the fact that there can be serious implications of disease spread due to touch, the instore workers should make sure that they sanitise the trial rooms immediately after each trial by the individual customer and provide proper instructions to the customers.

### **2.3 Shop Infrastructure**

There have been studies that proved that the actual purchasing behaviour is not only based on the cognitive elements of just quantity, quality and price. There are also emotional variables attached to the purchasing behaviour of customers, they not only include sensory cues and impulse buying but also the factor of infrastructure. This explains that how well a shop is built spaciouly and how good is the ventilation system. This is also a major factor where the customers who visit the shops to buy their commodities would get pleased and spend more time and money than what they have intended to buy because of the shop's infrastructure, it's ambience, the music and the temperature which are all the positive perks which is involved in the customer purchase behaviour (Donovan 1994). It is also evident that the environmental influence on the shopper's behaviour is quite associated by interior designs, proper architecture, and landscapes which is all now recognised by the retail giants, where they implement them all in their shops to increase more footfalls (Robert and John 1982).

Shoppers or customers mostly share their experience of shopping in supermarkets by their positive feeling rather than the stocks or the goods filled up in the store. Pleasantness in shopping is what that causes the customers get motivated to visit the supermarkets frequently (Spies et al. 1997). There is also evidence based on the studies that customers responses are increased based on the shop's atmospheric variables that include proper and attractive infrastructure in the store front along with the store windows (Michon et al. 2005). This pleasantness can be quantified with some of the attributes. They can be enough floor space, proper air ventilation and ample amount of parking space. Considering the fact about the Covid-19 pandemic shoppers get more motivated and get pleasant when they shop at supermarkets which are more spacious with proper air ventilation, more entry and exit points and that which provide an ample amount of parking space for all types of vehicles along with the proper assist by the instore workers. Thus, being intact with this pandemic scenario it is very evident that customers shopping behaviour is very closely associated with the infrastructure of the retail shops and supermarkets.

### **2.4 Service Quality**

Customers basically are more favourable to purchase in shops and supermarkets whose service quality is good or more far beyond good. This is actually proved by studies that customers are always motivated to buy more in shops and supermarkets where the shops workers provide hospitality and service to the customers which in in turn increases the footfalls of the customers to buy in the shops or supermarkets (Hu and Jasper 2006). There have been studies that clearly postulates the relationship between the store atmosphere, service quality and the customer satisfaction. It is also clear that service quality has more positive significant effect of all the above mentioned three factors with respect to customer loyalty, customer satisfaction and service quality (Purwadi et al. 2020). It is also assessed that the customer value existing within the service quality and customer satisfaction is significantly proved by the studies conducted by Oh (1999). Keeping in account of this Covid-19 pandemic customer care, convenience and courtesy are quite important for the customers who come to purchase in the stores or supermarkets. The in-store workers should be ready to be at service to the customers whenever there is a need for them in case of a service in ways where the customers whom come to purchase. Also, they should be approachable in all possible ways to the customers and they should be fluent with the regional languages and clean and hygiene.

Customer perceived quality, customer satisfaction and service quality are three interrelated and closely associated factors which have been studied continuously time to time in many researches and studies. If the store workers did not have hospitality and did not respond to the customers properly, they may lose footfalls in the shops and supermarkets which may result in low revenue and may lose their market. This has proved that there is a significant relation between service quality and customer satisfaction and also showed that there is a correlation between the same. Hence, it is evident that in order to increase sales and foot falls in stores and supermarkets there should be a good courtesy among the store workers resulting in high customer satisfaction which sums up the service quality of the store workers. It should also be noted that they should be clean and hygienic due to the Covid-19 pandemic where the buyers are motivated to visit the stores where there is high service quality along with the hygiene and sanitation (Sureshchandar 2002).

### 3. Research Methodology

#### 3.1 Multi-grade fuzzy

The performance of supply chain management was evaluated using the multi-grade fuzzy technique in the industrial and service industry (Sridharan and Suresh, 2016; Vinodh 2011; Vinodh and Chintha 2011; Vinodh and Aravindraj 2015; Ganesh and Suresh 2016; Almutairi et al. 2019; Vimal 2015).

In order to evaluate consumer buying decisions in supermarkets, the study used multi-grade fuzzy. The literature review on consumer purchases is the first step in the current study. In table 1, a new conceptual model is presented that uses twenty-four attributes, twelve criteria, and four enablers to evaluate the consumer purchase decision index.

Table 1. Conceptual model of consumer purchase decision in supermarkets

Enablers	Criteria	Attributes
Shop atmosphere (A1)	Cleanliness/Hygiene (A11)	Do a proper Thermal Scan for customers. (A111)
		Hygiene workers with gloves, masks clean Store less prone to disease. (A112)
	Distancing (A12)	Spacing between products. (A121)
		Distancing marks for customers and continuous announcement to maintain distancing. (A122)
	Sanitation (A13)	Placement of sanitizers in continuous intervals. (A131)
		Continuous cleaning of handles, lift buttons, trolleys and baskets. (A132)
Products or consumables (A2)	Visual appearance (A21)	Interior display: Attractive arrangement of the products in the store which results in impulse buying by the customers. (A211)
		Store Layout: Display of product information and signs all around the store to guide the customers. (A212)
	Consumable's placement (A22)	Placement of Sanitary supplies at the store entrance. (A221)
		Placement of packed food and day to day consumables. (A222)
	Apparels (A23)	Restricted choice of trial on apparels. (A231)
		Sanitized trial rooms after each trial. (A232)
Shop infrastructure (A3)	Floor space (A31)	Enough space between the racks and the products placed. (A311)
		Enough space in the billing area. (A312)
	Air circulation (A32)	Proper ventilation with a soft or ideal temperature (A321)
		Alternative exits and entrances so that consumers need not squeeze (A322)
	Parking space (A33)	Provide a spacious parking space for the consumers (A331)
		Workers to assist in providing proper spacing between the vehicles (A332)
Service quality (A4)	Customer care (A41)	Willingness of the employees to provide prompt service and help customers. (A411)
		Having proper knowledge, communication skills and providing proper response (A412)
	Convenience (A42)	The employees should be approachable for the customers to communicate with them. (A421)
		Delivering the promised response to the customers. (A422)
	Courtesy (A43)	Personalized attention given to a customer (A431)
		The attitude of employees and their ability to create trust and confidence in customers. (A432)

### 4. Case Study

#### 4.1 Case of Supermarket

To analyze the study on the behavioral characteristics of the consumer in case-supermarket was technically conducted in supermarket with all the safety precautions in place. The case-supermarket in which we surveyed consisted of all the necessary and basic amenities. To name few as a starter during this pandemic situation it had a good ventilation system, a huge amount of a parking space so that the people won't be crushed in the crowd and considering this pandemic the store had a very prominent sanitary facilities, the store workers were clean and neat,

they had the sanitizers placed all over the store for the customers and they checked the customers temperature before entering the store and also maintained the protocol given by the government during the pandemic. Being in this pandemic the above amenities were some of the selling points for the store to maintain the market share in that geography. The store as a part of marketing also provided exciting offers and benefits for the customers, thus maintaining the market streak irrespective of this pandemic, Covid-19.

The consumer purchase decision assessment index of supermarket is represented as  $A$ . It is the product of the overall assessment level of ratings based on each driver ( $R$ ) and the overall weights ( $W$ ) is given by the experts (Anil and Suresh 2020; Suresh et al. 2020; Menon and Suresh 2020). The equation for consumer purchase decision index is.

$$A=W \times R$$

Due to the fact that the entire consumer purchase choice index involves imprecise determination, the assessment has been separated into ten grades.  $V = \{10, 9, 8, 7, 6, 5, 4, 3, 2, 1\}$ . 9-10 represents "Extremely motivated for buying", 8-9 represents "Very highly motivated for buying", 7-8 represents "Probably motivated for buying", 6-7 represents "Might be motivated for buying", 5-6 represents "Low chances of buying motivation", 4-5 represents "Very low chances of buying motivation", 3-4 represents "Probably wouldn't buy products", 2-3 represents "High Probably wouldn't buy products", 1-2 represents "Definitely wouldn't buy product", and less than 1 represents "Not interested in buying". A questionnaire given to retail store managers and supervisors and graded on a 10-point likert scale to gather information. Six experts from various supermarkets provided the weighting, and table 2 displays the normalized weights for the enablers ( $W$ ), criteria ( $W_i$ ), and attributes ( $W_{ij}$ ). The performance ratings ( $R_1, R_2, \dots, R_6$ ) are collected from supervisors, sales representatives of case supermarket and it is captured in Table 2.

Table 2. Weightages and performance rating from experts

$A_i$	$A_{ij}$	$A_{ijk}$	$R_1$	$R_2$	$R_3$	$R_4$	$R_5$	$R_6$	$W_{ij}$	$W_i$	$W$
A1	A11	A111	10	10	9	8	10	10	0.4949	0.3373	0.2714
		A112	9	9	8	9	10	9	0.505		
	A12	A121	7	9	8	7	9	10	0.5333	0.3195	
		A122	8	8	8	10	9	8	0.4666		
	A13	A131	10	10	9	9	10	10	0.5212	0.3432	
		A132	9	9	8	7	8	8	0.4787		
A2	A21	A211	8	9	10	9	7	8	0.5	0.359	0.2476
		A212	9	9	10	10	9	9	0.5		
	A22	A221	10	10	9	8	9	9	0.4693	0.3203	
		A222	8	7	8	6	8	8	0.5306		
	A23	A231	2	3	5	1	3	4	0.4705	0.3203	
		A232	7	6	8	8	7	7	0.5294		
A3	A31	A311	8	9	9	10	9	8	0.5092	0.3105	0.2476
		A312	7	8	7	7	9	8	0.4907		
	A32	A321	8	9	9	8	9	10	0.5436	0.3416	
		A322	7	7	6	8	7	6	0.4563		
	A33	A331	9	10	10	10	9	9	0.495	0.3478	
		A332	8	9	9	8	7	9	0.5049		
A4	A41	A411	10	8	10	9	10	9	0.5204	0.3293	0.2333
		A412	9	9	10	9	10	9	0.4795		
	A42	A421	10	10	9	9	9	10	0.514	0.3473	
		A422	10	8	9	9	10	9	0.4859		
	A43	A431	9	8	10	8	7	8	0.4897	0.3233	
		A432	9	10	9	7	8	9	0.51		

### Primary assessment calculation

"The primary calculation is done for the "Cleanliness/Hygiene (A11)" is given below.

Weights concerning to "Cleanliness/Hygiene" criterion is  $W_{11} = [0.4949, 0.5051]$

Assessment for the practice of "Cleanliness/Hygiene" criterion is given below as."

$$R_{11} = \begin{bmatrix} 10 & 10 & 9 & 8 & 10 & 10 \\ 9 & 9 & 8 & 9 & 10 & 9 \end{bmatrix}$$

Index concerning of "Cleanliness/Hygiene" criterion is given by.

$$A_{11} = W_{11} \times R_{11} \text{ (Suresh and Gopakumar 2021; Sri and Suresh 2021; Sreedharshini and Suresh 2021)}$$

$$A_{11} = [9.49, 9.49, 8.49, 8.50, 10, 9.49]$$

The index for the following criteria in evaluating consumer purchasing decision is generated using the aforementioned principle and is provided below:

$$A_{12} = [7.46, 8.53, 8, 8.4, 9, 9.06]$$

$$A_{13} = [9.52, 9.52, 8.52, 8.04, 9.04, 9.04]$$

### Secondary assessment calculation

The computation for “Shop Atmosphere (A1)” enabler is presented as follows:

Weights concerning to “Shop Atmosphere” enabler given as  $A_1 = [0.337, 0.319, 0.343]$

Assessment of “Shop Atmosphere” enabler is given as below.

$$A_1 = \begin{bmatrix} 9.49 & 9.49 & 8.49 & 8.50 & 10 & 9.49 \\ 7.46 & 8.53 & 8 & 8.4 & 9 & 9.06 \\ 9.52 & 9.52 & 8.52 & 8.04 & 9.04 & 9.04 \end{bmatrix}$$

Index concerning of “Shop Atmosphere” enabler is given by.

$$A_1 = W_1 \times R_1 \text{ (Chacko and Suresh 2021; Vaishnavi and Suresh 2021)}$$

$$A_1 = [8.85, 9.19, 8.34, 8.31, 9.35, 9.20]$$

The index for the following facilitator in consumer buying decisions in supermarkets is generated by applying the aforementioned principle, and it is provided below.

$$A_2 = [7.40, 7.39, 8.41, 7.14, 7.22, 7.55]$$

$$A_3 = [7.86, 8.7, 8.39, 8.51, 8.33, 8.40]$$

$$A_4 = [9.51, 8.84, 9.48, 8.51, 9.01, 9.02]$$

### Tertiary assessment calculation

The assessment value of the consumer purchase decision in supermarket has been calculated as follows.

Complete weight  $W = [0.271, 0.247, 0.247, 0.233]$

$$\text{Complete assessment vector } R = \begin{bmatrix} 8.85 & 9.19 & 8.34 & 8.31 & 9.35 & 9.20 \\ 7.40 & 7.39 & 8.41 & 7.14 & 7.22 & 7.55 \\ 7.86 & 8.7 & 8.39 & 8.51 & 8.33 & 8.4 \\ 9.51 & 8.84 & 9.48 & 8.51 & 9.01 & 9.02 \end{bmatrix}$$

Consumer purchase decision index  $A = W \times R$

$$A = [8.40, 8.54, 8.64, 8.11, 8.49, 8.55]$$

The final Consumer purchase decision index of case supermarket is the average of  $A = 8.46 \in (8 \text{ to } 9)$ .  $\therefore$  ‘Very highly motivated for buying’.

## 4.2 Importance Performance Analysis (IPA)

For identifying qualities according to importance and performance, IPA is frequently used in the industrial and service industries (Tzeng and Chang 2011); Chacko et al. 2021; Sreedharshini et al. 2021). The performance of the qualities is measured on the IPA’s x-axis, while importance is measured on the y-axis. As a perpendicular line in figure 1, the mean of the x-axis is 8.42 and the mean of the y-axis is 8.36.

In order to increase customer motivation, supermarket managers must pay close attention to the characteristics in this quadrant (concentrate here) (Q1). The attribute is “Spacing between products, interior display: attractive arrangement of the products in the store which results in impulse buying by the customers, placement of packed food and day to day consumables, enough space in the billing area, workers to assist in providing proper spacing between the vehicles.”

Quadrant II (Keep up the good work): The attributes in the quadrant are need to maintained as the same and the attributes are “display of product information and signs all around the store to guide the customers, enough space between the racks and the products placed, proper ventilation with a soft or ideal temperature, willingness of the employees to provide prompt service and help customers, the employees should be approachable for the customers to communicate with them, delivering the promised response to the customers.”

Quadrant III (Possible overkill): The attributes in this quadrant are low importance but high performance. The attributes are “do a proper thermal scan for customers, hygiene workers with gloves, masks clean store less prone

to disease, placement of sanitizers in continuous intervals, placement of sanitary supplies at the store entrance, provide a spacious parking space for the consumers, having proper knowledge, communication skills and providing proper response, the attitude of employees and their ability to create trust and confidence in customers.”  
 Quadrant IV (Low priority): The attributes in this quadrant are low importance and low performance. The attributes are “distancing marks for customers and continuous announcement to maintain distancing, continuous cleaning of handles, lift buttons, trolleys and baskets, restricted choice of trial on apparels, sanitized trial rooms after each trial, alternative exits and entrances so that consumers need not squeeze, personalized attention given to a customer”.

Importance →	9.4	<b>Quadrant I</b>											A121	A321	<b>Quadrant II</b>		
	9.2														A311	A421	
	9											A312	A211		A212		
	8.8										A222				A422		
	8.6												A332		A411		
	8.4													A112, A432	A331		
	8.2												A122		A111	A131	
	8											A322		A431	A412		
	7.8														A221		
	7.6											A232		A132			
	7.4																
	7.2																
	7																
	6.8	A231															
	6.6	<b>Quadrant IV</b>													<b>Quadrant III</b>		
		3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9		9.5	10
	<b>Performance Rating →</b>																

Figure 1. IPA analysis for consumer purchase decision in supermarket

### 5. Results and Discussions

The Consumer purchase decision index for the case supermarket is an average of  $A = 8.46 \in (8 \text{ to } 9)$ , which is very highly motivated for buying. Hence this consumer purchase decision index should focus more on the weaker attributes and try to increase improvement such that the supermarket could be a very safe, motivated and elegant place for the consumers to spend time in their purchasing decisions even during this pandemic era. The case analysis on assessment of consumer purchase decision in supermarkets brings some important findings. Multi-Grade fuzzy logic methodology is used to identify the factors that which is caused for the customer buying decision specifically during this pandemic. IPA was used to identify the attributes that which are crucially essential and also the places where improvements can be made by the supermarkets which in turn would motivate the customer for a better buying decision. The case study not only helped us to find the attributes which are good for the supermarkets but also the ones that are of low priority and the ones where there cannot be any compromise made especially during this pandemic. The management in the supermarkets should form a team and come up with arrangements to overcome the possibilities where there are gaps and should make sure that they are addressed as soon as possible.

The current case study used IPA to identify the weaker attributes by analyzing performance with the importance. The case supermarket needs to focus their strength and special attention given on the critical attributes for improvement. The suggestions for the improvement of weaker attributes are given on Table 3.

Table 3. Suggestions for weaker attributes

Weaker attributes	Suggestions for improvement
Spacing between products	<ul style="list-style-type: none"> <li>The shop has an enormous amount of floor space, but it would be good if they could provide more space among the daily essentials so that the customers won't squeeze.</li> </ul>
Interior display: Attractive arrangement of the products in the store which results in impulse buying by the customers	<ul style="list-style-type: none"> <li>The store quite lacked in planogram, attractive arrangement would a major spot for the store to increase sales. They could use some creative ways and techniques to arrange the products in a more attractive way to increase sales in impulse buying.</li> </ul>
Placement of packed food and day to day consumables	<ul style="list-style-type: none"> <li>Sanitary utilities are placed in the closest reach, whereas some importance could be given to consumables as well.</li> </ul>
Enough space in the billing area	<ul style="list-style-type: none"> <li>There were eight billing counters but only three or four are active, they could make all the billing counters active.</li> </ul>
Workers to assist in providing proper spacing between the vehicles	<ul style="list-style-type: none"> <li>The shop had a huge and plenty of space for parking, but no parking assist was given, hence the customers tend to get crowded near the shop entrance.</li> </ul>

## 6. Practical Implications

The case study first helped us to find the enablers, criteria and attributes to develop a multi-grade fuzzy assessment framework. The study has come up with four practical implications from the managerial point of view. The first one would be the places where the managers should concentrate to improve the performance in the supermarkets which would motivate for more foot traffic in the stores and increase sales. The second one is a set of attributes where the case-supermarket is already doing good and should keep on doing the good work. The third would be where the supermarket managers should never compromise on certain attributes which would be a possible harm to the customers. The final one implication is of low importance yet if the managers could bring in some improvements where they could bring more sales through motivation in the minds of the consumers buying decisions.

## 7. Conclusion

Based on the study conducted in the customers buying or purchasing behavior. The study found that there were some attributes involved which played a prominent role in the supermarket characteristics. In this study identified were four enablers, which involves customers buying decisions in the supermarkets. Based on those enablers there were several criteria and attributes that relate to the customers buying decision in supermarkets. Multi-grade fuzzy was used as a methodology to develop this assessment framework. Then the attributes are classified based on its importance and weightages with the help of Importance Performance Analysis. The weaker attributes are identified from IPA, and also identified the key attributes where they are doing good. Hence, from this study it is clear that how customers buying decisions vary accordingly, also the places and perspectives where the supermarkets should fill the missing gaps to make more foot traffic in their stores and increase sales. Thus, the study has proven that how this pandemic has affected the customer buying decisions.

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