



STUDY ON MARKET PERCEPTION, BRAND AWARENESS AND CONSUMER'S BUYING BEHAVIOUR OF HERBICIDE (EMEK) IN AGRA DISTRICT OF UTTAR PRADESH

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ABSTRACT

This study focused on the market perception, brand awareness and consumer's buying behaviour of Emek herbicide in Agra District of Uttar Pradesh. A sample of 120 respondents from 2 randomly selected villages were selected for the study. The study revealed several factors influencing Emek's brand awareness in the study area such as marketing and advertising, product packaging and design, performance and quality, brand reputation, distribution of herbicides, availability of insecticides, price and value proposition, and social media presence. The study found that around 21% of farmers prefer buying a product based on quality, 15% on price, and 05% on packaging attractiveness. 26% of agrochemicals are bought only because of the relationship with their distributor, 17% of agro-products are bought based on brand, 7% are bought through promotion, and 05% are bought through friends and neighbors. Availability factors affecting buying behavior of Emek include availability at wholesaler shops (27.33%), retailer shops (60.00%), and online platforms (11.67%). Quality factors affecting buying behavior include preventive (34.17%), curative (43.33%), and safe to applicator (22.50%). Price factors affecting buying behavior include low (47.50%), medium (41.67%), and high (10.83%). Packaging factors affecting buying behavior include availability in small, large, and small packs (30.00%), packet quality (27.50%), and packaging quality (22.50%). Performance factors affecting buying behavior include poor performance (10.00%), average performance (33.17%), and excellent quality (50.83%).

Keyword: Market Perception, Brand Awareness and Consumer Buying Behaviour.

INTRODUCTION

Over 70% of India's population is employed in or dependent upon the agricultural industry, which is vital to the country's economy. Increasing industrial output and productivity requires the use of herbicides,

which include fungicides, rodenticides, molluscicides, nematocides, and plant growth regulators (Ajay 2019). Due to its effects, organochlorine (OC) herbicides—which were once widely used to treat

typhoid and malaria—have been banned or subject to limitations in many industrialised countries; in contrast, their usage is less than 1 kilogramme per acre in nations like the US and Japan. There are obstacles in reducing food crop losses, which now stand at 35–45% as a result of pests, illnesses, and inadequate storage facilities (Bharttacharya 2018). These constraints include limited knowledge, resources, and available land. With 13th-place exports and fourth-place agrochemical production after the US, Japan, and China, India has become a major participant (Anwar, 2019). In 2020, the Indian herbicide market was estimated to be worth ₹ 232 billion. Applying herbicides to seeds, soil, irrigation water, and crops at recommended dilution levels is essential for managing pests, weeds, and diseases. India's reliance on agriculture and its ability to produce and export pesticides highlight the need for better storage, efficient weed control, and methods to reduce food grain waste. These factors led to the conducting of a study titled "Study on Market Perception, Brand Awareness, and Consumer Buying Behaviour of Herbicides (Emek) in Agra District, Uttar Pradesh" with four main goals: identifying the socioeconomic profile of herbicide users among farmers; analysing factors influencing consumer purchasing decisions; assessing barriers in herbicide marketing; and examining the herbicide market and brand awareness. This two-month study was carried out in a few Bichpur villages in the Uttar Pradesh district of Agra.

RESEARCH METHODOLOGY

The methodology used to select the district, the blocks, the villages and the respondents was purposively cum random sampling. The district of Agra was selected in order to

avoid the inconvenience and time constraints on the investigator. All the blocks falling within the district of Agra were selected, and the block of Bichpuri was selected based on the majority of respondents involved in potato and wheat cultivation. A separate list of villages was prepared for the selected block, and five percent of the villages from the selected block with a high number of respondents cultivating potatoes and wheat were randomly selected. A list of each village's rice and potato farms was compiled and divided into five groups based on the size of land they held. Size categories are marginal (less than 1 hectare), small (1-2 hectares), semi-medium (2-4 hectares), medium (4-6 hectares) and large (more than 10 hectares). Using proportional random selection, 120 farmers who were cultivating potatoes and wheat were chosen at random from the list. From the wholesalers/traders/retailers, 5 each were selected to study market perception, brand awareness and consumer buying behaviour in the study area. Primary data was collected through suitable designed schedule. Secondary data was collected from books/journal/report/records of district/blocks headquarters. Data from respondents were collected through survey methods via direct personal interview. Statistical tools were used to analyse the data and present the result. Data pertained to the agricultural year of 2022-2024.

ANALYTICAL TOOLS

Likert scale

Likert scale (2, 4, 5, or 7) is a common classification format used in studies. Respondents rank a product or service's quality (data) from highest to lowest, and from better to worse.

RESULT AND DISCUSSION

Table 1: Brand awareness of Emek in the study area.

Categories	Respondents Number	Respondents					Percentage (%)
		Marginal	Small	Semi-medium	Medium	Large	
Marketing and Advertising	15	7	3	3	1	1	12.50
Product Packaging and Design	13	4	5	2	1	1	10.83
Performance and Quality	20	5	7	4	3	1	16.67
Brand Reputation	16	3	2	6	4	1	13.33
Distribution	17	2	4	3	7	1	14.17
Availability	19	6	5	2	5	1	15.83
Price and Value Proposition	14	4	2	4	3	1	11.67
Social Media Presence	6	2	1	1	2	0	05.00
Total	120	33	29	25	26	7	100.00

Table 1, Shows that there are several factor affecting in brand awareness of Emek in the study area by different categories of respondents are marketing and advertising that is (12.50%), Product packaging and design that is (10.83%), Performance and Quality that is (16.67%), Brand Reputation that is (13.33%), Distribution of herbicide in area that is (14.17%), Availability of insecticide that is (15.83%), Price and Value Proposition that is (11.67%) and Social Media Presence that is (05.00%).

Table 2: Market perception of Emek.

Sr. No.	Parameter	Respondents	Percentage (%)
1.	Quality	26	21.67
2.	Price	19	15.83
3.	Packaging	07	05.83
4.	Relation with Dealer	32	26.67
5.	Brand image	21	17.50
6.	Promotional Strategies	09	07.50
7.	Source of Information	6	05.00
	Total	120	100.00

Table 2, The study's conclusions are as follows: 21.67% of farmers said that a product's quality influences their decision to buy it. Of farmers, 15.83% like the product's price, while 05.83% favour the appealing packaging. Agrochemical purchases are made exclusively by 26.67% of farmers depending on their distributor connection. 17.50% of farmers rely their agro-product purchases on brand perception. 07.50% of farmers make their agro product purchases using persuasive marketing techniques. 05% of farmers get knowledge about their goods from neighbours, friends, or other people.

Table 3: The breakdown of respondents based on Emek availability.

General	Categories	Respondents Number	Respondents					Percentage (%)
			Marginal	Small	Semi medium	Medium	Large	
Availability of Emek	Wholesaler	34	6	6	8	13	1	28.33
	Retailer	72	23	18	15	11	5	60.00
	Online	14	4	5	2	2	1	11.67
Total		120	33	29	25	26	7	100.00

Table 3, Indicates that throughout the course of the investigation, it was determined that several categories of respondents' Emek purchasing behaviour was influenced by availability considerations. 28.33% of wholesale shops are available, 60.00% of retail shops are available, and 11.67% of online platforms are available.

Table 4: Emek Quality Distribution Emek Quality Distribution.

General	Categories	Respondents Number	Respondents					Percentage (%)
			Marginal	Small	Semi- medium	Medium	Large	
Quality of Emek	Preventive	41	11	13	5	10	2	34.17
	Curative	52	19	12	16	3	2	43.33
	Safe to Applicator	27	3	4	4	13	3	22.50
Total		120	33	29	25	26	7	100.00

Table 4, reveals that during the course of the study, it was established that there are quality factors influencing the buying behaviour of Emek by the following categories of respondents: Preventive - 34.17%, Curative - 43.33% and Safe to applicator - 22.50%

Table 5: How respondents are ranked based on Emek price.

General	Categories	Respondents Number	Respondents					Percentage (%)
			Marginal	Small	Semi- medium	Medium	Large	
Price of Emek	Low	57	17	9	14	15	2	47.50
	Medium	50	12	17	8	9	4	41.67
	High	13	4	3	3	2	1	10.83
Total		120	33	29	25	26	7	100.00

Table 5, Additionally, it shows that price was found to be a determining factor in Emek purchasing behaviour across the various respondent groups during the course of the study. Price ranges: 47.50% for low, 41.67% for medium, and 10.83% for high.

Table 6: Packaging of Emek breakdown of respondents.

General	Categories	Respondents Number	Respondents					Percentage (%)
			Marginal	Small	Semi- medium	Medium	Large	
Packaging of Emek	Small pack	36	13	11	3	7	2	30.00
	Large pack	24	9	5	4	5	1	20.00
	Packet Quality	33	7	6	7	11	2	27.50
	Packaging quality	27	4	7	11	3	2	22.50
	Total	120	33	29	25	26	7	100.00

Table 6, It demonstrates how, over the course of the study, it was determined that packaging factors, such as availability in small packs (30.00), availability at large packs (20.00), packet quality (27.50), and packaging quality (22.50), influence the purchasing behaviour of Emek among various groups of respondents.

Table 7: Number of respondents based on Emek Performance availability.

General	Categories	Respondents Number	Respondents					Percentage (%)
			Marginal	Small	Semi medium	Medium	Large	
Performance of Emek	Poor	12	3	2	2	4	1	10.00
	Average	47	12	13	11	9	2	39.17
	Excellent	61	18	14	12	13	4	50.83
Total		120	33	29	25	26	7	100.00

Table 7, Over the course of the investigation, it was determined that the following respondent types' purchasing decisions were influenced by performance factors: The percentage of the emek product that performed poorly (10.00%), averagely (37.17%), and exceptionally well (50.83%)

CONCLUSION

Antibiotics have a bright future today and in the near future, as the demand for antibiotics is increasing every year. Farmers are dependent on pesticides, indicating an increasing need for pesticides. Farmers do not want to spend time on agriculture. They want to easily solve all problems on the field. That's why they use good antibiotics. The use of pesticides and herbicides helps farmers produce more crops. Therefore, they also use antibiotics and plant growth regulators. Pesticides are effective because they kill plant species in a short time. Farmers often use too much pesticide. Some farmers say excessive use of pesticides is

damaging their fields and that they only use pesticides when their crops need them. According to farmers, pesticides are very important for the growth of crops because without them, crops cannot grow well. All stages of the plant, including leaves and stems, are attacked by herbicides. Therefore, herbicides are needed for agricultural purposes. All farmers hope to achieve good results with low inputs. PCR is used to obtain high results. PGR provides all micronutrients to potato plants and controls the growth of affected plants. Agra is one of the largest potato producers in the region. Potato growers use agrochemical products

from Syngenta, Dow, Bayer, Sumitomo, Dhanuka, UPL and many other companies. But we also need better support. In Agra region, ADAMA has a huge opportunity to capture the market. We need to increase our advertising in the Agra region and focus on new products. ADAMA has a good name and reputation in Agra area. We need to use this energy to increase our business and sales.

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