Project Dissertation Report

Impact of Product Packaging
on Consumer Behaviors

Submitted By

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2K22/DMBA/83

Under the Guidance of

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DECLARATION

I, Neha Yadav, a student of Delhi School of Management, Delhi Technological University hereby declare that the Major Research Project Study on "Impact of product packaging on consumer behaviour" submitted in partial fulfilment of the requirements for the award of the degree of Master of Business Administration (MBA) is the original work conducted by me. I also confirm that neither I nor any other person has submitted this project report to any other institution or university for any other degree or diploma. I further declare that the information collected from various sources has been duly acknowledged in this project.

Neha Yadav
2K22/DMBA/83

CERTIFICATE

This is to certify that Neha Yadav, 2K22/DMBA/83 has submitted the report titled "Impact of product packaging on consumer behaviour", under the guidance of Dr. Vikas Gupta, as a part of Master of Business Administration (MBA) curriculum of Delhi School of Management, New Delhi, during the Academic year 2023-24.

Dr Vikas Gupta
Associate Professor

ACKNOWLEDGEMENT

EXECUTIVE SUMMARY

In marketing, a product encompasses any tangible or intangible item, service, or system that fulfills consumer needs or desires and is available for purchase or use in the market. It can be anything that holds value and meets customer requirements.

The customer receives the product & service and plays a crucial role in the financial transaction. This study aims to explore the role of packaging in influencing consumer behavior, with a focus on identifying the factors that contribute to successful packaging. Designing and creating packaging entails applying scientific, creative, and technological techniques to create containers that safeguard goods during use, storage, sale, and transit. This procedure includes designing, developing, and producing structures and materials for packaging.

I collected data through a questionnaire and analysed it using SPSS. The model's reliability was tested with a sample of 100 consumers. Consumer purchasing behavior serves as the dependent variable. Consumer behavior is a field of study that examines the actions of individuals, groups, or organizations related to the purchase, use, and disposal of goods and services. It covers a wide range of consumption-related activities, by psychological and behavioural influences on purchasing decisions.

This analysis explores how emotions, attitudes, and preferences impact consumers' purchasing choices. Packaging plays a crucial role in influencing consumer behaviour. Elements such as colour, background image, material, printed information, and innovation are considered key predictors. Packaging is vital in marketing communications, especially at the point of sale, and can significantly affect consumer purchasing decisions. This study aims to identify which packaging elements most strongly influence consumer choice.

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1.INTRODUCTION

1.1Background

In today's competitive market, packaging has become a vital sales promotion tool due to increased self-service and changing consumer lifestyles. Companies use packaging to encourage impulse buying, boost market share, and reduce promotional costs. Rundh notes that packaging attracts consumer attention, enhances brand image, and shapes perceptions, adding unique value and differentiating products. This helps consumers make choices among similar products, thereby stimulating purchasing behavior. To maximize the effectiveness of packaging at the point of sale, researching packaging elements and their impact on consumer buying behavior has become increasingly important.

The literature analysis on the topic indicates a lack of consensus on classifying packaging elements and the research methods used to assess their impact on consumer purchase decisions. Some researchers investigate the influence of all possible packaging elements on consumer decisions, while others focus on the impact of individual elements on buying behavior. Additionally, some studies assess the overall effect of packaging on purchase decisions, whereas others analyze each stage of the consumer decision-making process.

The diverse findings in this field are influenced by the research models and methods employed, as well as the specific context of the research. This variability highlights the need for a more detailed investigation into which packaging elements most significantly impact consumer purchase decisions. Given these complexities, the research problem can be formulated as follows: Which elements of packaging have the greatest influence on consumer purchase decisions?

The purpose of this study is to empirically identify the packaging elements that most significantly impact consumer purchase decisions across various products, based on a theoretical analysis of these elements.

Enclosing and safeguarding goods for usage, storage, distribution, and sale is known as packaging. As a complete system for getting items ready for shipping, storing, and selling, it entails designing, testing, and creating packages. The following are some of the purposes of packaging: promotion, communication, transportation, preservation, and containment. It is essential in many areas, such as business, government, industry, institutions, and private situations.

1.1.1 Eras:

a) Ancient Era

Early forms of packaging made use of natural materials available at the time, such as reed baskets, wineskins, wooden boxes, pottery vases, ceramic amphorae, wooden barrels, and woven bags. As new materials emerged, packaging advanced to include items like early glass and bronze vessels. The first documented use of paper for packaging dates back to 1035, when a Persian traveller noted that in Cairo's markets, goods such as vegetables, spices, and hardware were wrapped in paper for customers.

b) Moderns Era.

When tinplate packaging first emerged in the eighteenth century, Bohemia was the primary producer. Tinplate manufacture was brought to England in 1667 by Andrew Yarranton and Ambrose Crowley. Philip Foley and John Hanbury improved the process in 1697. Bristol Channel ports produced the first tinplate boxes in 1725, and by 1805, production had increased significantly. Since the 1760s, tobacconists in London have stored snuff in metal-plated canisters.

In 1810, Nicolas Appert made the discovery of airtight food preservation. The first commercial canning factory opened in London in 1813 after the canning patent was sold to Bryan Donkin and John Hall in 1812. Setup boxes were invented in the sixteenth century, and folding cartons were popular in 1839. Pre-cut paperboard boxes were created in the 1870s by Robert Gair, and corrugated sheet production started in 1817. Advances in the early 20th century included carton panels, cellophane overwraps, and Bakelite closures. Plastics and aluminium both contributed to better packaging.

Since the 1980s, post-consumer recycling has been encouraged by curbside recycling, consumer awareness campaigns, and the economic viability of recycling aluminium

and paper. Since the 1980s, post-consumer recycling has been encouraged by curbside recycling, consumer awareness campaigns, and the economic viability of recycling aluminium and paper.

Military requirements led to many packaging developments, including "mil spec" packaging during World War II, which had strict performance and quality requirements. In wealthy nations, packaging made up around 2% of GDP in 2003, with food accounting for half of this total. For five millennia, natural materials were employed in early packaging, and then glass and wood. In wealthy nations, packaging made up around 2% of GDP in 2003, with food accounting for half of this total. For five millennia, natural materials were employed in early packaging, and then glass and wood. Metal canisters were patented by Peter Durand in 1823, and in the 1900s, advancements were made that favoured paper, cardboard, and plastic. Plastic packaging made of polyethylene took the place of wax paper after World War II. Glass packing advances with the invention of the Phoenician blow pipe in 300 B.C., extending back to 1200 B.C. The automated rotary glass machine of 1889 transformed the production process, leading to the widespread usage of glass in high-end products during the 1970s and beyond.

Setup boxes were invented in the sixteenth century, and folding cartons were popular in 1839. Pre-cut paperboard boxes were created in the 1870s by Robert Gair, and corrugated sheet production started in 1817.

c) Plastic Era.
Alexander Parkes indeed showcased the first synthetic plastic, called "Parkesine," at London's Great International Exhibition in 1862. This innovative material was developed as a substitute for natural substances like ivory. Additionally, in 1849, Charles Goodyear and Thomas Hancock devised a technique to remove the tackiness of natural rubber and add elasticity to it. This advancement led to the commercial availability of hard rubber, known as "ebonite," by 1851.

In 1870, New Yorker John Wesley Hyatt the first commercially successful plastic - Celluloid was produced under high temperatures and pressures and contained low

nitrates. It remained the primary plastic material until 1907, when Leo Hendrik Baekeland introduced "Bakelite."

1.1.2 Types of Packaging.

a) Plastic:

Plastic is the most commonly used packaging material, although it poses challenges in disposal. All plastics share common traits: they are lightweight, durable, and cost-effective to produce. Due to these properties, they are widely employed as alternatives to cardboard and glass packaging. Plastics contribute to nearly 10% of our waste.

b) Metal:

Metal, particularly aluminium and tinplate, is suitable for food packaging, such as cans. Aluminium is commonly used for beverages like soft drinks and beer, while tinplate, a steel piece coated with tin, prevents rusting in canned goods. Metal packaging can be separated using magnets and should always be recycled.

c) Cardboard:

Cardboard is a suitable packaging material, especially for wrapping products, and is preferable to polystyrene. Its use may not be necessary for well-packaged items. Cardboard is easily recyclable and reusable, available in various forms such as boxes and corrugated sheets.

d) Glass:

Glass is an ideal material for food packaging, particularly liquids, due to its durability and recyclability. It is commonly used for household items like jars, glasses, and jugs. However, its weight and shape can pose challenges in transportation and storage.

1.1.3 Packaging Trends.
Research firms have forecasted six global packaging trends, including heightened personalization, more succinct on-pack information, and continued development of environmentally friendly products.

1. The Digital Evolution.

Research firms predict a significant shift in digital package printing, marking a "tipping point" where brands move beyond limited editions to fully embrace personalization, driven by its economic and speed-to-market advantages.

Coca-Cola's "Share a Coke" campaign, credited with reversing a decade-long sales decline, showcases digital printing's ability to connect with consumers on a personal level. Mintel notes that a significant portion of U.S. millennials and Chinese consumers value custom or personalized packaging, with digital printing expected to exceed current industry projections, currently comprising 10% of global packaging decoration.

2. Increased flexibility.

According to Mintel's Global New Product Database, flexible packaging, including pouches, experienced a remarkable 56% growth in the consumer packaged goods category from 2010 to 2014. About one-third of consumers perceive flexible packaging as modern, with highlighting its capacity to provide brands with outstanding decoration and marketing prospect .He forecasts ongoing utilization of pouches by brands to capture consumer attention, with innovative brands venturing into hybrid rigid/flexible packaging options that offer functionality, environmental advantages, and strong shelf presence.

3.SHOW ME...NOT TOO MUCH.

Mintel emphasizes the importance of clear and concise on-pack communication, particularly regarding ingredients, product attributes, convenience, and safety. Excessive messaging can overwhelm consumers, leading to confusion. Mintel predicts a trend towards the convergence of clean labeling and transparent on-pack communication, underscoring the significance of transparency in packaging.

4.The Evolution of Green

According to Mintel, package recycling is significantly underutilized because many consumers are unsure how to handle compostable packaging. Two key initiatives are gaining traction: emphasizing alternative packaging materials and addressing the preferences of the 63% of American consumers who consider reusable packaging a crucial purchasing factor.

Mintel highlights that when product price and perceived quality are comparable, consumers are increasingly prioritizing eco-friendly and alternative-use attributes as the decisive factors in their purchasing decisions.

5. Size matters

Mintel emphasizes the importance for brands to provide packaging options in sizes that consumers perceive as suitable for their needs, family sizes, and various usage occasions. For example, there is a demand for more variety in smaller alcohol bottle sizes among 39% of UK consumers, while larger milk containers are valued by families worldwide. Additionally, 50% of health-conscious snackers express willingness to try new products if they are available in smaller trial-sized packs. Mintel underscores the necessity for brands to offer a diverse range of pack sizes as they expand their product portfolios to meet evolving consumer preferences and usage scenarios.

6.Going Mobile

Mintel predicts that by the end of 2015, 64% of retail spending will be influenced by mobile interactions, making mobile the key to consumer loyalty. Unlike older methods using QR codes and basic augmented reality, the future of mobile engagement will focus on near-field communication (NFC) and Bluetooth low-energy technologies for better consumer experiences.

1.1.4 Packaging and its Functions

Every year, billions of pounds are invested in packaging food and various items, with

food products comprising 60% of all packaging. In the early twentieth century, food was predominantly sold loose, measured, and weighed before being handed over to shoppers in bags or directly into their own containers. Packaging and advertising were virtually non-existent during that era. Today, packaging has evolved into a substantial and lucrative industry, with the appearance of packaging frequently playing a decisive role in influencing a shopper's purchasing decision regarding the product contained within.

1. Packaging protects from damages or contaminations caused by microorganisms, air, moisture, and toxins. It also protects the product from being dropped, crushed, or experiencing vibrations during transportation. Fruits and other delicate items require rigid packaging, such as laminated containers.

2. Packaging must also be weather-resistant, capable of withstanding highest temperatures, humidity, light, and gases in the air. Additionally, it must be resistant to microorganisms, chemicals, soil, and insects.

3. To keep products together and prevent spills, certain items, like vegetables, present packaging challenges. However, suppliers have found solutions; for example, producers of canned vegetables such as carrots have developed specific plant varieties that yield straighter, smaller carrots that fit into cans. Products like fruit juices and sausages must be sealed in containers to prevent spillage and loss.

Packaging also serves to identify the product. It plays a critical role in advertising and distinguishing the product to consumers. For manufacturers, the package clearly labels the product inside, and it is typically the package that customers recognize when shopping. Effective advertising is essential when introducing a new or existing product. Customers often identify packages by their colors or logos, which aids in product recognition. Additionally, packaging includes important information such as ingredients and the "sell by date," providing essential details to consumers.

4. Designing a package that is easy to transport, move, and lift involves creating a regular-shaped package, such as a cuboid. This shape allows for efficient stacking, minimizing wasted space between packages. As a result, a lorry container can hold more packages, optimizing space and reducing transportation costs. Unusually shaped

packages can lead to wasted space, which becomes costly when transporting thousands of the same package. Therefore, a cuboid design is preferred to maximize efficiency and reduce expenses.

5. Stacking and storage are crucial considerations for packaging in supermarkets and shops. Packages must be stackable to ensure efficient use of shelf space, as lost shelf space represents a missed opportunity for sales.

Additionally, the design should allow potential buyers to easily see important information, especially the product name. Observing packages in a supermarket, you'll notice that most have a rectangular or cuboid shape. This shape facilitates stacking and storage, optimizing space. The choice of colors and shades on the packaging also influences consumer perception, indicating whether the product is high-quality, sophisticated, or low-cost. Efficient stacking is often achieved by placing packages on top of one another, with the shape and form of the package playing a key role in how easily this can be done.

6. Printed information on packaging serves both consumers and businesses, such as supermarkets. It includes essential details like ingredients, sell-by dates, prices, special offers, the manufacturer's address, contact information, product title, barcode, and more.

Barcodes play a crucial role for stores by automating inventory management. When scanned, the computer system automatically tracks product sales and determines if reordering is necessary. Additionally, the barcode facilitates pricing at the checkout, ensuring accurate and efficient transactions. This comprehensive printed information on packaging enhances convenience and transparency for both consumers and businesses.

1.2 Problem Statement

There is a basic need to understand consumer behavior towards packaging and whether it isnecessary or not to enhance consumer satisfaction.

1.3 Objectives of the Study

● To analyze what is Packaging and how is it necessary for products

● To check the effect of packaging elements such as packaging color, packaging material, Packaging innovation.

● To assess the relative influence of each packaging element on the consumer

1.4 Scope of the Study

The aim of this study is to conduct a theoretical analysis of packaging components and their influence on consumer buying behavior. Through empirical research, this study aims to unveil the diverse features that significantly influence a consumer's decision-making process when presented with various options. By identifying the most critical packaging elements for consumers and examining their influence on purchase decisions, the study seeks to provide valuable insights into consumer behavior and preferences related to packaging. It is crucial to emphasize that this research is original and has not been plagiarized from any other source.

2.LITERATURE REVIEW

2.1Purchase Decision

The choice of color in packaging plays has big impact in grabbing consumers' attention and differentiating competitive brands. In a supermarket setting, consumers are inundated with a plethora of products, but they are drawn to those whose colors stand out. Each color conveys distinct meanings: green suggests naturalness, security, relaxation, or ease; red signifies excitement, passion, and strength; orange evokes power, affordability, and informality; white denotes goodness, purity, cleanliness, and formality; and black exudes power, authority, and mystery.

Consumers often perceive quality based on color, interpreting different hues according to their beliefs and preferences. Color can influence consumers' perception of price; for instance, orange is more likely to be perceived as expensive than blue. Studies by Roullet have shown that colors influence consumer perceptions of quality, price, and attraction, particularly in products like medicines where safety guidelines are crucial. For example, brown, red, or orange colors may signify treatment for sophisticated diseases, which are perceived as quicker acting and more expensive than blue, green, or yellow.

Beyond color, packaging design significantly impact consumer emotions, perceptions of quality, and purchasing behavior. Consumers mostly prefer environmentally friendly packaging materials. Packaging communicates essential information about product benefits, key ingredients, and effects on health and the environment, fostering trust among consumers. In marketing, packaging holds paramount importance, as it often serves as the primary factor influencing consumer purchasing decisions. Underwood et al. assert that packaging imagery is even more critical than verbal communication in shaping consumers' perceptions of products.

2.2 Packaging elements

Packaging encompasses sub-elements like price, product, place, and promotion, all working in tandem with marketing tools. Initially valued at 10%, packaging now constitutes up to 70% of item values, emphasizing its critical role in protecting products from external damage and presenting them to consumers. Factors such as color, font style, and packaging structure contribute to a positive brand image.

Understanding consumer behavior is vital, as social and psychological traits influence purchasing decisions. A well-designed packaging meets modern customer needs, enhancing satisfaction. Elements like color, image, design, size, and shape influence packaging intention, with perceived value mediating purchase intention. Consumer purchase intention is shaped by perceived value, product knowledge, packaging design, and celebrity endorsements.

Consumers undergo a five-step buying decision process, starting with problem recognition and information gathering to meet their needs. Effective marketing communication channels aid in problem recognition. After reorganizing basic needs, consumers make a purchase decision, selecting from available alternatives. Post-purchase behavior allows marketers to assess customer satisfaction and address any issues. Understanding these stages is crucial for effective marketing strategies.

In the past, packaging primarily consisted of boxes and wrappers. Today, packaging serves as a strategic tool to enhance competitive advantage and market share. The imagery on packaging must align with the brand or product to attract customers effectively. Studies suggest that the graphical elements of packaging can significantly influence consumer perception, sometimes even more so than verbal information on product labels.

Attractive packaging plays a crucial role in gaining a competitive edge, particularly in today's fast-paced world where consumers are time-constrained. Visual packaging holds greater importance than verbal communication due to its immediate impact. Graphics and colors leave a lasting impression on consumers, often influencing

purchase decisions. In some instances, consumers associate specific colors with particular preferences or individuals, driving their purchasing behavior.

Moreover, the size of the packaging relative to the actual product can affect consumer perceptions. If the packaging appears disproportionately large compared to the product inside, it may lead to a one-time purchase but discourage repeat purchases. Therefore, ensuring that packaging accurately reflects the product's contents is essential for maintaining consumer trust and loyalty.

2.3 Consumer Perception.

In the vast landscape of an American supermarket, where consumers are bombarded with approximately 20,000 product options, compelling product design plays a pivotal role in setting apart competitive brands and swaying final purchasing decisions. Studies suggest that product packaging influences a significant majority—60% to 70%—of these final purchase choices. Packaging serves as a nexus for consumers, acting as a conduit for delivering essential product-related messages.

Essentially, packaging functions as a communication tool, aiding in brand identification, product highlighting, and promotion. Its design serves as the ultimate advertising mechanism, tasked with informing, persuading, and ultimately convincing consumers before they make their final purchase decisions. Notably, research indicates that two-thirds of purchases are impulsive, driven by product design. Many new product acquisitions stem from unplanned decisions, underscoring the strong correlation between product packaging and design.

3.RESEARCH METHODOLOGY

3.1 Theoretical framework.

The theoretical framework for independent and dependent variables can be expressed as follows:

a) Independent variable : packaging color, material, and innovation.

b) Dependent Variable: Consumer Purchasing Behaviour.

The color and material of packaging exert significant influence on consumers' decision-making processes. Various colors can evoke distinct emotions and capture attention, thereby shaping potential customers' purchasing choices. Packaging crafted from high-quality materials can allure customers and sway their buying decisions positively, whereas inferior packaging materials may deter purchases. Consequently, companies must meticulously select the color and material of their packaging to resonate with their target demographic and bolster sales.

Innovative packaging holds the potential to elevate the value of a product by addressing specific consumer needs such as recyclability, tamper-proofing, child-proofing, easy-open features, and convenient storage and transportation capabilities. Such packaging solutions not only solve consumer problems but also set the product apart from competitors. The provision of unique and practical features can exert a positive influence on consumer purchasing behavior, making innovative packaging a critical consideration for businesses aiming to attract and retain customers.

3.2 Descriptive analysis.

Descriptive analysis serves as a prevalent technique for deriving research outcomes. By employing descriptive statistics, researchers can succinctly summarize their data, presenting key metrics such as minimum, maximum, and mean values. It provide valuable insights into the central tendencies and variability within dataset, facilitating a clear understanding of the data's distribution and characteristics.

3.3 Correlation

Pearson's correlation is a statistical method utilized to gauge the relationship between multiple continuous variables. This analytical approach yields values ranging from 0.00 (indicating no correlation) to 1.00 (reflecting a perfect correlation). Various factors, including the size of the study cohort, impact the significance of the correlation. Typically, a correlation value surpassing 0.80 is deemed high.

In the context of decision-making processes within Indian supermarkets, where consumers are inundated with numerous product choices, consumer perception holds considerable sway. An appealing product design and packaging can effectively distinguish a brand amidst its competitors and significantly influence the customer's ultimate decision. Research indicates that product packaging plays a pivotal role in steering 60% to 70% of final purchase decisions by acting as a conduit for conveying crucial product information.

Product design and packaging serve as potent advertising tools, facilitating the education, persuasion, and conviction of customers prior to their purchase decisions. They play pivotal roles in brand recognition and marketing efforts. According to research, packaging design encompasses three key dimensions: graphic design, structural design, and product information. Elements such as brand name, font, imagery, and color contribute to the graphic design aspect.

The aim of this study is to explore various facets of consumer purchasing behavior across diverse locations within the Indian market. Utilizing a sample size of 100 participants, including students, professionals, businessmen, and other individuals, this study collected data through questionnaires. However, only 100 completed questionnaires were received, which were then inputted into SPSS software for analysis. Descriptive statistics were employed to succinctly summarize and delineate the data, encompassing variables such as gender, age, occupation, and education, using mean and percentage values. The utilization of descriptive statistics allowed for the determination of minimum, maximum, and mean values within the dataset.

The second technique involved analyzing the dependent and independent variables using correlation and regression.

4. ANALYSIS

4.1 Introduction to the Case.

In the contemporary competitive landscape of business, where numerous companies offer similar products, consumers are faced with a plethora of choices while shopping. Consequently, packaging has emerged as a crucial tool for influencing consumer purchase intentions. As noted by Belch and Belch, the average American consumer encounters approximately 20,000 products within a brief 30-minute supermarket visit. In this highly competitive setting, packaging plays a pivotal role in setting products apart and providing a competitive edge.

Research by Nilsson and Ostrom underscores the significance of packaging graphic design, encompassing elements such as brand name, typography, and structural design, including packaging size or product dimensions. These factors collectively contribute to the consumer brand experience and influence purchase decisions, fostering brand loyalty. Packaging serves as a tool for marketers to capture consumers attention and gain a competitive advantage over rivals. The choice of packaging color holds particular importance, as it aids in distinguishing a product amidst competitors' offerings. In a crowded market, the color of packaging can attract the customer's gaze and reinforce brand recall. Additionally, the selection of packaging material holds significance, as it can mitigate losses. Utilizing quality materials not only enhances product appeal but also attracts customers to the product, contributing to overall sales performance.

The font style used on packaging should be chosen based on customer perceptions, as companies that use the best font style are more likely to succeed in the market. There are three types of perceptions: (i) Somaesthetic or hearing visual; (ii) gustative; and (iii) kinesthetic perception.

In today's fiercely competitive business arena, packaging has evolved into a vital component of company marketing strategies. It serves as a means to differentiate a product from its competitors, capturing the attention and interest of customers, thereby

fostering increased brand loyalty and gaining a competitive advantage. Companies must meticulously consider the design, color, material, and font style utilized in their packaging to align with their marketing objectives and resonate with their target audience.

The article titled "Impact of Product Packaging on Consumer's Buying Behaviour," authored by Ahmed Rizwan Raheem, Parmar Vishnu, and Amin Muhammad Ahmed, and published in the European Journal of Scientific Research in April 2014, delves into the pivotal role of packaging in shaping consumer behavior and elucidates the critical factors underpinning a brand's success. The study aims to ascertain the relationship between dependent and independent variables, gather primary data via a questionnaire, and analyze it using SPSS software.

Having collected 150 responses and scrutinized the model's reliability, the study's findings underscore packaging as the foremost factor influencing consumer purchasing decisions. Furthermore, it concludes that packaging elements such as color, material, wrapper design, and innovation wield significant influence when consumers navigate their purchasing choices.

The article underscores how packaging has evolved into a powerful sales promotion tool for businesses, driving impulse buying behavior among consumers. Through effective packaging strategies, companies can not only boost sales and market share but also reduce marketing and promotional costs. Packaging plays a crucial role in capturing consumer attention, enhancing brand image, and shaping perceptions of the product. Moreover, it adds distinct value to products, aids in differentiation, and assists consumers in navigating diverse product offerings.Acknowledging the lack of consensus on the classification of packaging materials and elements, the article highlights divergent views among researchers regarding the impact of packaging on consumer purchasing behavior. While some researchers explore various packaging elements comprehensively, others focus on specific elements and their influence on consumer decisions.Ultimately, the study underscores packaging as one of the most critical factors influencing consumer purchasing decisions. It identifies key packaging elements that hold significance for consumers, suggesting that organizations should consider these factors when designing their products.

4.2 Data Collection.

Data Collection The study's population consists of individuals who use banking services provided by public or private banks in India. Structured questionnaires were used to collect relevant data for the research, and they were administered personally. The information was gathered using a questionnaire with 17 questions. The questionnaire used a Likert scale and was coded as follows: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5. In surveys, Likert scale questions are commonly used to collect data for social science research. It allows researchers to assess participants' attitudes, beliefs, and perceptions about a particular subject. The number codes assigned to each response make it easier to examine the data and draw useful inferences. To facilitate data collection, an Excel file was created that included a Google Form. This study's quantitative analysis was conducted using convenience sampling. The ability to reach a large number of respondents, ease of use, and low cost are just a few of the advantages of using a Google Form to collect data.
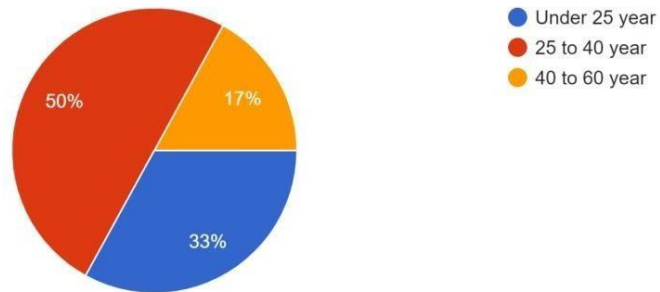
4.3 Data Analysis.

The term "analysis" refers to the process of organizing and synthesizing data to answer research questions and test hypotheses. It involves computing specific resources and searching for patterns of relationships between data groups. The collected data was systematically processed, tabulated, and made ready for analysis and interpretation. It was a study on consumer perceptions of the banking sector, with a focus on the public and private sectors, using data collected via questionnaires. The obtained results were classified, tabulated, and various tests were performed to check the reliability and validity of the collected data.
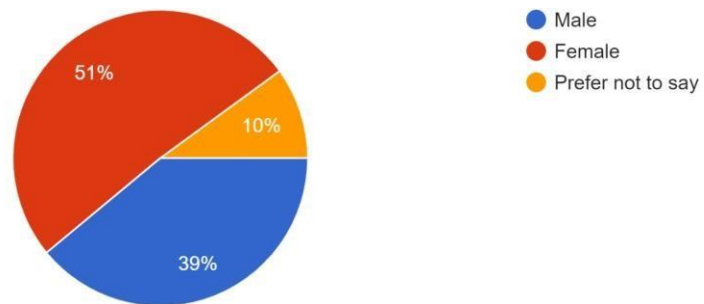
A summary of the responses collected via questionnaire, along with the analysis, is as follows.

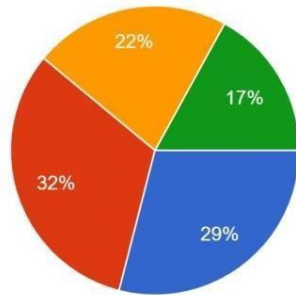### 4.3.1 Synopsis of responses

Age
100 responses

- Under 25 year
- 25 to 40 year
- 40 to 60 year

50%   17%   33%

Gender
100 responses

- Male
- Female
- Prefer not to say

51%   10%   39%

Profession

100 responses
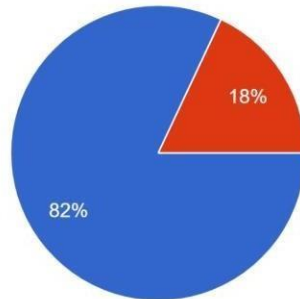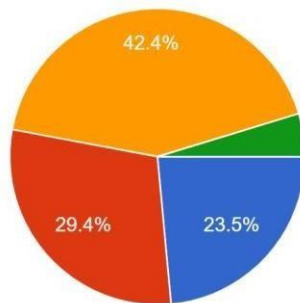

- Student
- Corporate
- Businessman
- Other

22%
17%
32%
29%

Do you prefer packaged or unpackaged goods?

100 responses

- Packaged
- Unpackaged

18%
82%

What is your priority towards packaging ?

85 responses

- Protective
- Eco-friendly
- Attractive
- Other

42.4%
29.4%
23.5%

Education

100 responses

- Primary school only
- Up to secondary school
- UG
- PG

39%
44%
13%

Do you prefer packaged or unpackaged goods?
100 responses
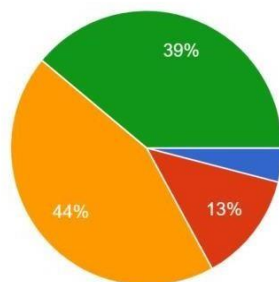

- Packaged
- Unpackaged

18%

82%

What is your priority towards packaging ?
85 responses
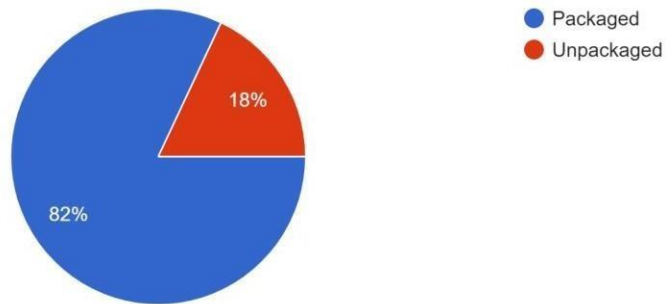

- Protective
- Eco-friendly
- Attractive
- Other

42.4%

29.4%   23.5%
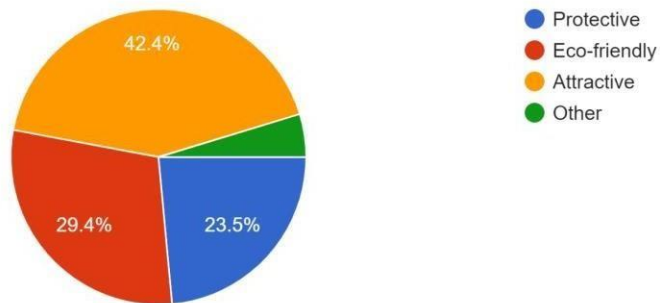
A perfume business selected two colours for its packaging. Which colour will you choose?
85 responses

- Black
- Pink

29.4%

70.6%
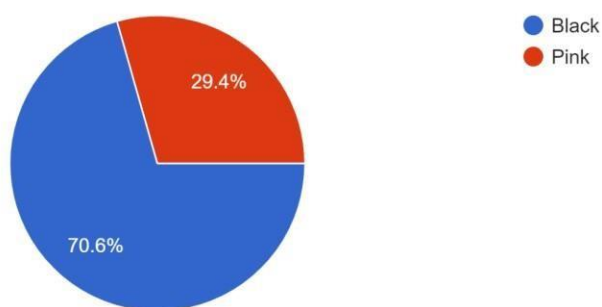
4.3.2 Frequency
Table 1: Frequency Statics

MEASURE	ITEM	FREQUENCY	PERCENTAGE,
Gender	Male	51	51%
	Female	39	39%
	Prefer Not to say	10	10
Age	Under 25	33	33%
	25-40	50	50%
	40-60	17	17%
Profession	Student	29	29%
	Corporate	32	32%
	Businessman	22	22%
	Other	17	17%
Education	Primary School	0	0%
	Secondary school	13	13%
	UG	44	44%
	PG	39	39

Preferred Goods	Packaged	86	86%
	Unpackaged	14	14%

In the above table, genders are represented by 100 respondents, with 51% male, 39% female, and 10% choosing not to say. The table above shows the age of the participants. The age row shows that 33% of the respondents are under the age of 25. 50% of respondents are between the ages of 25 and 40, with 17% falling between the ages of 40 and 60.According to the above table, 29% of respondents are students and 32% are in corporate. In the table above, 22% of respondents are businessmen, while 17% are involved in various types of income-generating activities.

According to the above table, 29% of respondents are students and 32% are in corporate. In the table above, 22% of respondents are businessmen, while 17% are involved in various types of income-generating activities. The table above shows the participant's education level; 4% of respondents are only in primary school, while 13% are in secondary school. And 44% of the respondents are undergraduates, while 39% are post graduates. We also see that 82% of respondents prefer packaged goods, while only 18% prefer unpackaged goods.

4.3.3   Descriptive statistics

Table 2: Descriptive statistics (Buying Behaviour)

	N	Minimum	Maximum	Mean	Std. deviation
Buying Behavior	86	1	5	3.41	0.53

In Table 2, the values range from a minimum of 1 to a maximum of 5. The mean is 3.32, with a standard deviation of 0.54, indicating the central tendency and variability of the data. The study includes 86 observations for each variable.

Table 3: Descriptive statistics (Packaging Colour)

	N	Minimum	Maximum	Mean	Std. deviation
Package Color	86	1	5	3.32	0.54

In Table 3, the values range from a minimum of 1 to a maximum of 5, with a mean of 3.32 and a standard deviation of 0.54. The mean indicates the central tendency of the variable's values. Each variable has 86 observations.

Table 4: Descriptive statistics (Packaging Material)

	N	Minimum	Maximum	Mean	Std. deviation
Packing Material	86	1	5	3.34	0.52

In Table 4, the values range from a minimum of 1 to a maximum of 5, with a standard deviation of 0.52.

Table 5: Descriptive statistics (Innovation)

	N	Minimum	Maximum	Mean	Std. deviation
Innovation	86	1	5	3.5	0.54

In the above table 5, the minimum value is 1, maximum value is 5, and the mean value is 3.5 whereas the standard deviation is 0.54. Mean value provides the idea about the central tendency of the values of the variable. Number of observations of each variable is 86.

4.3.4 Pearson's Correlation

Hypothesis 1

H1:there is relationship b/w Buying Behavior and Packing color

Table 6: Correlation b/w Buying Behavior &Packing Color

	N	Buying Behaviors	Packing Colors
Buying Behavior	Pearson Correlation	1	0.289
	Sig. (2-tailed) N	86	0.000129
Packing Color	Pearson Correlation	0.289	1
	Sig. (2-tailed) N	0.000129	86

Table 7: Regression Analysis Model Summary Table of the Relationship Between Consumers' "Buying behaviour" and "Packing Colour"

Regression Statistics	
Multiple R	0.263604
R Square	0.069487
Adjusted R	0.059992
Standard E	0.883669
Observatic	100

Table 8: Regression Analysis ANOVAr Table of the Relationship Between Consumers'"Buying Behavior" and "Packaging color"

	df	SS	MS	F	Significance F
Regression	1	5.714618	5.714618	7.318258	0.008051
Residual	98	76.52538	0.780871		
Total	99	82.24			

Table 9: "Standard Error, t, p" Value Results as a result of the Regression Analysis of the Relationship Between Consumers' "Buying Behavior" and "Packaging color"

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.011127	0.290587	6.920922	4.68E-10	1.434467	2.587786	1.434467	2.587786
The colour of a product's packaging influence your mental process?	0.222879	0.082388	2.705228	0.008051	0.059382	0.386376	0.059382	0.386376

Table 6 presents a correlation analysis showing that buying behavior and packaging color are positively correlated (r = 0.289, p = 0.000129). This indicates a moderate yet significant relationship between the two variables.

Table 7 shows statistically significant results (F = 7.31 and p = 0.008) from regression analysis of this model. The F value is less than (p < 0.05), 0.05. This denotes statistical relevance.

The H1 hypothesis was tested using regression analysis. There is a strong correlation between "Perceptions Towards Packaging" and "Purchase Frequency". The regression analysis revealed that only two of the five independent variables ("Creation of Brand Image-CBI and Comparison and Promotion-CP") had a significant impact on "Purchase Frequency". H

Hypothesis 2

H2: there is relationship between Buying Behavior and Material of Packing

Table 10: Correlation b/w Buying Behavior & Material of Packing

	N	Buying Behavior	Packing Color
Buying Behavior	Pearson Correlation	1	0.239
	Sig. (2-tailed)N	86	0.000125
Quality of Packing	Pearson Correlation	0.239	1
	Sig. (2-tailed)N	0.000125	86

Table 11: Regression Analysis Model Summary Table of the Relationship Between Consumers' "Buying behavior" and "Packing Material"

Regression Statistics	
Multiple R	0.093931
R Square	0.008823
Adjusted R	-0.00129
Standard E	0.916169
Observatio	100

Table 12: Regression Analysis ANOVA Table of the Relationship Between Consumers'"Buying Behavior" and "Packaging color"

	df	SS	MS	F	Significance F
Regression	1	0.732218	0.732218	0.872347	0.352601908
Residual	98	82.25778	0.839365		
Total	99	82.99			

Table 13: Regression Analysis Results for the Relationship Between Consumers' "Buying Behavior" and "Packing Material"

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.229572	0.293498	11.00373	8.14E-19	2.647134774	3.812009	2.647135	3.812009
How much	0.094358	0.101026	0.933995	0.352602	-0.106125179	0.294841	-0.10613	0.294841

Table 10 represents the correlations between variables, specifically highlighting the positive correlation between buying behavior and the quality of packaging (r = 0.239, p = 0.000125). This indicates a moderate and significant relationship between these two variables. As a result, hypothesis H2 cannot be rejected, suggesting that consumers do indeed evaluate products based on the quality of their packaging. Customers tend to prefer products with better packaging quality.

Regression analysis was applied to this model, yielding a statistically relevant result (F = 0.87, p = 0.35). However, since the F value is smaller than 0.05, this means it is not statistically significant. Therefore, the model's statistical relevance should be reassessed, as it does not meet the conventional threshold for significance (p < 0.05).

Hypothesis 3

H3: there is relationship between Buying Behaviour and Packing Innovation

Table 14: Correlation b/w Buying Behaviour & Quality of Packing

	N	Buying Behaviors	Packing Color
Buyer Behavior	Pears Correlation	1	0.224
	Sig. (2-tailed) N	86	0.000135
Packing Innovation	Pears Correlation	0.224	1
	Sig. (2-tailed) N	0.000135	86

Table 15: Regression Analysis Model Summary of the Relationship Between Consumers' "Buying Behavior" and "Packing Innovation"

Regression Statistics	
Multiple R	0.093931
R Square	0.008823
Adjusted R Square	-0.00129
Standard Error	0.916169
Observations	100

Table 16: Regression Analysis ANOVA Table of the Relationship Between Consumers'"Buying Behaviour" and "Packaging Innovation"

	df	SS	MS	F	Significance F
Regression	1	0.732218	0.732218	0.872347	0.352601908
Residual	98	82.25778	0.839365		
Total	99	82.99			

Table 17: Regression Analysis Results for the Relationship Between Consumers' "Buying Behavior" and "Packing Innovation"

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3.229572	0.293498	11.00373	8.14E-19	2.647134774	3.812009	2.647135	3.812009
How much do you	0.094358	0.101026	0.933995	0.352602	-0.106125179	0.294841	-0.10613	0.294841

Table 14 represents the table of correlations between two variables buying behavior and Innovation, which is positively correlated (r= 0.224, p = 0.000135). There is moderate relationbetween these two variables, which is significant. So, there is a significant relationship betweenBuying Behavior and Packing Innovation.

Regression analysis is applied to this model and statistically relevant (F = 0.87) and p=0.35), as seen above Table 16. F value is smaller than (p<0.05), 0.05. This mean statistically relevant.

4.4.1 Findings and Recommendations
It has been discovered a large portion of consumer material consists of primary visual elements such as colour.

When purchasing a product, the majority of respondents prioritize packaging quality over packaging colour.
According to our research, the majority of respondents believe that product packaging influences their purchasing decisions.
Most people believe that eco-friendly packaging is preferable.

4.4.2 Recommendations.

Proper attention to good packaging is strongly advised for marketing and business units. Poor packing can result in product fail in the market. Therefore, it is essential to establish packaging standards and implement effective strategies to ensure better product protection and promotion.

According to research, cultural differences can have an impact on companies' product packaging design initiatives. For example, our research revealed that packaging color preferences differ significantly between the West and the Far East. As a result, international companies must take cultural differences into account when design product pack for different parts of the world.

It should be noted that packaging is not the only factor influencing the success of a product. Marketers in the industry should also consider other important marketing factors when launching new products or revitalizing existing ones.

Other researchers interested in packaging should take into account other aspects of marketing. This allows them to gain a more comprehensive understanding of how packaging affects a product's market success.

4.5 Limitation of the Study

1. Sample size: A study with 100 participants may not be representative of the entire population, as only 86 chose packaged products. The sample size may be insufficient to generate conclusive results and apply the findings to a larger population.

2. Sampling bias: The method used to select the 100 consumers may have been biased. For example, if the sample is drawn from a specific location, the results may not accurately reflect the behavior of consumers in other regions.

3. Self-reporting bias: The study's reliance on consumer self-reporting may lead to biases. Consumers may not respond accurately or truthfully to the questions posed.

4. Limited scope: The study may only examine a few variables related to consumer behaviour and product packaging. This may limit our understanding of the factors influencing consumer behaviour.

5. Lack of control: The study may not account for external factors that impact consumer behaviour. For example, mood, time of day, and the presence of other people can all have an impact on consumer behaviour.

CONCLUSION

Project has revealed that packaging significantly influences consumer purchasing behaviour. Research shows that while there isn't a direct correlation between attractive packaging and product quality, well-designed packaging often conveys a perception of high quality, positively influencing consumer opinions. Key findings from the study on the role of packaging in consumer buying behavior include:

Packaging as a Marketing Tool: Packaging is one of the most valuable tools in today's marketing communication. Therefore, understanding its components and their impact on consumer behavior is critical.

Visual and Practical Elements: Elements such as vivid imagery, appealing colors, and practical features (e.g., ease of handling, opening, dosing, and disposal) are crucial in capturing consumer attention and interest.

Consumer Preferences: The study highlights the significance of individual packaging elements in consumer choices. Key elements that consumers consider important include:

Graphics & Color: Attractive and informative graphics can draw attention and provide necessary product information. Colors that evoke positive emotions can enhance the appeal of a product.

Size and Shape: The size and shape of the packaging can affect convenience and attractiveness, influencing consumer preference.

Material: The material used in packaging can impact the perceived quality and sustainability of the product.

In conclusion, the detailed analysis of packaging elements reveals their critical role in consumer buying behavior. By focusing on appealing visuals, practical features, and consumer preferences, brands can enhance the attractiveness of their products and positively impact sales.

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Evolving Consumer Views on Product Packaging

Hello Everyone,
I am conducting this research for my Research Project.
Kindly fill out this survey

Thankyou
Neha Yadav

nehayadavv.19@gmail.com Switch account

Not shared

* Indicates required question

Name *

Your answer

Age *

◯ Under 25 year

◯ 25 to 40 year

◯ 40 to 60 year

Gender *

◯ Male

◯ Female

◯ Prefer not to say

Profession *

◯ Student

◯ Corporate

◯ Businessman

◯ Other

Education *

◯ Primary School only

◯ Up to secondary school

◯ UG

◯ PG

Do you prefer packaged or unpackaged Goods ? *

◯ Packaged

◯ Unpackaged

How much do you prefer packaged goods ? *

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

What is your priority towards packaging ? *

○ Protective

○ Eco - Friendly

○ Attractive

○ Other

Do u switch your brand due to change in packaging of existing Brand ? *

○ Yes

○ No

○ Sometimes

The color of a product's packaging influence your mental process ? *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

A perfume business selected two colors for its packaging. Which color will you choose ? *

○ Black

○ Pink

The material of packaging affects your decision making process ? *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

34

What packaging material do you prefer ? *

○ Bio degredable

○ Plastic

You prefer buying product samples ? *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Innovation is important for packaging . *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

The printed information on the package influence your buying decision. *

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

The language used on the package influence your buying decision . *

	1	2	3	4	5	
Strongly Disagree	○	○	○	◉	○	Strongly Agree

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