



Analyzing and assessing the effect of product packaging design and online customer review on brand recognition and online purchase intention.

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Abstract : In today's competitive marketplace, businesses strive to capture consumer attention and loyalty through effective product packaging design and online customer reviews. This research investigates the impact of these factors on brand recognition and online purchase intention. The study investigates the relationship between product perception and brand memorability as it relates to packaging design components such as colour, graphics, and materials. It also looks at how brand perception and customer trust are affected by the volume, tone, and substance of online customer reviews.

A quantitative research approach was adopted using the survey research design and used a questionnaire tool to achieve the research objectives. The sample size of this research paper is 100. Questionnaires were distributed to 170 people on the basis of random selection. Data were collected and analysed from 100 random respondents. Previous research studies, including journal, articles and published researched paper were also used as secondary resources.

The findings showed that the design of product packaging has a big impact on brand awareness since it serves as a visual clue to customers about the company's identity and values. Online customer reviews also serve as social verification of a product's legitimacy and quality, which significantly influences consumer attitudes and purchasing decisions.

The implications of this research extend to marketers, offering insightful advice on how to manage online reputation and create packaging tactics that improve brand awareness and encourage online purchase intention. Businesses may maximise their marketing efforts to strengthen their brand visibility and increase online sales in an increasingly competitive digital marketplace by recognising the relationship between product packaging design and online reviews.

Keywords: product packaging design, online customer review, brand recognition, online purchase intention, consumer behaviour

I. INTRODUCTION

This research objective is to provide businesses with practical strategies aimed at bolstering brand visibility and stimulating consumer buying behavior. It seeks to dissect the individual and combined influence of product packaging design and online customer reviews on consumer decisions. By understanding the nuanced impact of aesthetically appealing packaging and the persuasive power of digital word-of-mouth, companies can refine their marketing approaches. Specifically, the study will explore how innovative packaging can captivate potential customers, the extent to which online reviews sway purchasing decisions, and whether the synergy between eye-catching design and positive online feedback significantly boosts product appeal. This comprehensive analysis aims to equip businesses with the knowledge to tailor their product presentation and online engagement strategies effectively, thereby maximizing brand recognition and influencing consumer purchase intentions in a competitive marketplace.

Product Packaging, a way a brand portrays its products in terms of colour, shape, use of different fonts, typos and body structure which creates a physical appearance of the product is what catches the consumer attention. Product packaging is essential to the success of companies in a variety of sectors. It goes beyond a mere container and becomes a powerful tool to attract customers, convey brand identity, and enhance the overall customer experience. In today's highly competitive marketplace establishing a strong brand presence and influencing consumer purchase decision are paramount to business success.

Equally, Ecommerce is the new game that the major percent of companies seek to survive. Ecommerce has grown substantially over the past years and has become increasingly important in our daily life (Wang, 2021). With every product review available online, consumers are increasingly inclined to obtain product information from reviews. It allow consumers to share their experiences with a particular brand, which can then be used by other consumers to make informed decisions about their purchases. Consumers purchase decisions are highly dependent on other persons experience which they extract it online through various online shopping platforms.

Therefore, this research paper aims to investigate the distinct elements of packaging design (such as color, imagery, and typography) that exert influence on both brand recognition and online purchase intention. Additionally, it will explore the various attributes of online customer reviews (including sentiment, rating, and information quality) and their effects on brand perception and purchase intention. By delving into these aspects of product packaging and online reviews, this study seeks to provide valuable insights to companies aiming to strategically leverage these factors to establish a robust brand presence and sway consumer purchase decisions effectively.

1.1 Problem Statement:

The purpose of the study is to look into how brand awareness and online purchase intention are affected by product packaging design and online customer reviews. Effective product packaging is essential in today's cutthroat market for drawing customers in and establishing brand identification. Furthermore, the influence of internet customer reviews on consumers' perceptions and purchasing decisions has grown. It is imperative for organisations aiming to develop a robust online presence and improve client engagement to comprehend how these aspects interact. This study aims to offer insights that can direct marketing strategies and improve brand performance in the digital sphere by looking at how product packaging design and online reviews affect brand identification and purchase intention. By means of an extensive examination of customer behaviour and attitudes, this research endeavours to provide marketers and enterprises with invaluable insights to enhance their online branding endeavours and augment sales.

1.2 The Objective of the study:

- To understand the impact of product packaging design elements on brand recognition and online purchase intention.
- To investigate the influence of online customer review characteristics on brand perception and purchase intention.
- To explore the potential interaction effects between packaging design and customer reviews on brand recognition and purchase intention.

1.3 The Scope of Study:

In this research, we aim to investigate how **product packaging design** and **online customer reviews** influence **brand recognition** and **online purchase intentions**. We will explore the visual elements of packaging (such as color, shape,

typography, and imagery) and examine their impact on consumers' ability to recognize and recall a brand. Additionally, we will analyze the quality, quantity, and sentiment of online reviews to understand their role in shaping consumers' intentions to purchase products from a particular brand. By studying these factors, we seek to provide valuable insights for marketers and designers to enhance brand visibility and drive online sales.

II LITERATURE REVIEW

- **(Kumar, 2016) has done research on “Impact of Packaging on Consumers’ Buying Behaviour: A Case Study of Mother Dairy, Kolkata.”**

The aim of the research was to ascertain how the colour of the package influences the purchasing choice of consumers. to investigate the impact of the packaging's backdrop image on customers' choice to buy. to investigate how packaging influences consumers' decisions to buy. In the months of June and July 2015, the researcher gathered data from 150 completed questionnaires that were gathered from the districts of Howrah, Hooghly, and Burdwan in the state of West Bengal. The Chi-square test, the correlation, and the t-test were used to examine the data. The study's conclusion was that, when it came to establishing effective channels of communication between a business and its customers, packaging might be considered one of the most significant marketing tools. The survey demonstrates that consumers' perceptions of Mother Dairy's product packaging are generally positive and reflect their needs. A product's packaging can evoke positive emotions in consumers when it incorporates creative ideas, well-chosen colours, and a backdrop image. Each of these package components has a crucial role in attracting and capturing the interest of consumers.

- **(Ahmad, Billoo, & Lakhan, 2012) has done a research on “ Effect of Product Packaging in Consumer Buying Decision.”**

The purpose of the study was to identify the most important components of product packaging and how they affect consumers' purchasing decisions. The use of the internet in packaging as a tool for sales promotion and to encourage impulsive buying is developing as a result of changing customer lifestyles and an increase in self-service. Therefore, packaging is crucial to marketing and can sometimes even persuade a customer to purchase a product, particularly when it comes to point of sale or when the customer is selecting between several brands of comparable products. This may be regarded as one of the key elements affecting a customer's choice of what to buy. This study was carried out after examining many facets and elements of packaging, bearing in mind the significance of product packaging and the significant influence it can have on the choice to buy. It was found that the colors of packaging is the most important and significant feature at 1%, followed by a picture or image of the purchasing which is significant at 10%.

- **(Mazhar, Daud, Bhutto, & Mubeen, 2015) has done research on “Impact of Product Packaging on Consumers Buying Behavior: Evidence from Karachi.”**

This study aims to ascertain how packaging influences consumers' purchasing decisions. The goal of this study is to investigate the key elements that propel a brand's success. The relationship between the independent and dependent variables was also determined by this study. This is the main study, and SPSS software was utilised for data analysis after questionnaires were utilised to gather the data. 300 respondent samples were gathered for this study in order to assess the model's dependability. The research study's conclusions indicate that packaging has been shown to be the most crucial component. It is further determined that when consumers are making any kind of purchasing decision, the packaging elements—such as colour, substance, and design—are more significant aspects. Ultimately, it has also been shown that one of the most significant and potent factors influencing a consumer's decision to buy is the packaging. It is further determined that when consumers are making any kind of purchasing decision, the packaging elements—such as colour, substance, and design—are more significant aspects. Ultimately, it has also been shown that one of the most significant and potent factors influencing a consumer's decision to buy is the packaging.

- **(Martinho, Pires, Portela, & Fonseca, 2015) has done research on “Factors affecting consumers’ choices concerning sustainable packaging during product purchase and recycling.”**

This study investigates how sustainable packaging influences consumer purchasing and recycling behaviors. Utilizing data from an online survey with 215 Portuguese respondents, it contrasts two consumer groups: those valuing eco-friendly packaging versus those deeming it insignificant for purchasing decisions. Key findings reveal that gender, environmental awareness, societal opinions, green purchasing attitudes, and perceived impact of consumer actions significantly distinguish between these groups. While important, additional factors like price must be addressed to further encourage sustainable packaging use. The results offer valuable insights for policymakers, packaging producers, and marketers. Future research should expand nationally to deepen understanding of consumer pro-environmental behaviors related to sustainable packaging and examine how product-packaging relationships affect consumer choices.

- **(Spence, 2016) has done research on “Multi-sensory Packaging Design: Color, Shape, Texture, Sound, and Smell.”**

This study says that several products on the supermarket shelf either succeed or fail based on their visual characteristics of packaging design, such as colour and form or image mould. The significance and effects of packaging colour have been extensively studied, but academics have paid significantly less attention to the haptic (or tactile), auditory, and olfactory aspects of packaging design thus far. With an emphasis on the contributions of the various senses to the consumer's total multi-sensory product experience, this review critically assesses the literature on multi-sensory food and beverage packaging. Evidence is examined regarding how product packaging, including colour and other sensory signals, can draw a shopper's attention on the shelf while also indicating the likely flavour of the contents. Furthermore, the consumer's impression of the taste and flavour of the contents might be influenced by the packaging's multi-sensory elements. In the coming years, there will probably be more interest in the multi-sensory aspects of product packaging due to decreased production and development costs as well as increased understanding of their significance.

- **(Devedi, Sujatha, & Pathak, 2017) has done research on “A study on parameters of online reviews content that influence consumers buying behaviour- an Indian perspective”.**

In the digital age, customers are avid seekers of knowledge, leveraging the internet's accessibility to connect and share information on various platforms like social networks, blogs, and messaging apps. Online reviews play a crucial role in shaping consumer decisions, with each opinion contributing to a company's reputation. Negative reviews can damage this reputation, impacting the brand image. This study aims to bridge the gap in understanding how online reviews influence consumer behavior. Through a descriptive research design involving 104 participants, key parameters influencing consumer decisions were identified, including product quality, usage information, cost-benefit analysis, deals/discounts, warranty details, brand reputation, and sales service availability.

- **(Chakraborty & Bhat, 2017) has done research on “The Effects of Credible Online Reviews on Brand Equity Dimensions and Its Consequence on Consumer Behavior.”**

Social media platforms are being used by consumers to learn about and impart brand expertise. Customers are exposed to a variety of online brand reviews in the virtual world, which shapes their perception of the brands. The current study examines the impact of reliable internet reviews on brand equity aspects using attribution theory and the Yale attitude change model. The current study examines the several elements that influence the credibility assessment of online reviews using the prism of the Yale attitude change model. Moreover, attribution theory serves as the theoretical foundation for an analysis of how reliable online reviews affect brand equity metrics and, ultimately, purchase intention. The impact of online credible reviews on customer-based brand equity (CBBE) dimensions and its effect on consumer behaviour (purchase intention) are the subjects of this study, which use structural equation modelling (SEM). The findings show that the most crucial elements influencing a consumer's assessment of a review's legitimacy are the source and the quality of the review. In the case of consumer electronic devices in India, online reputable evaluations have a greater influence on perceived value, brand awareness, and organisational associations, all of which influence the buyer's propensity to purchase.

- **(Elwalda, Abdulaziz, Lu, & Kevin, 2016) has done research on “The impact of online customer reviews (OCRs) on customers' purchase decisions: An exploration of the main dimensions of OCRs.”**

Online customer reviews (OCRs) are now a major source of product information and have a big impact on what people decide to buy. This has had a major effect on how consumers decide what to buy. OCRs' implications on consumer behaviour have drawn a lot of scholarly interest lately. Thus, it is necessary to give an overview of these impacts. Thus, the current understanding of the connections and linkages between OCRs and customers' purchase intents is examined in this research. It goes over the key OCR aspects and how they impact consumers' propensity to buy. It also discusses the metrics, outcomes, antecedents, helpfulness, roles, and credibility of OCRs. Furthermore, an analysis of OCRs is presented in a case study to enhance comprehension of the correlation between OCRs and consumers' purchase intentions.

- **(Yayli & Bayram, 2012) has done research on “e-WOM: The effects of online consumer reviews on purchasing decisions.”**

For many customers, the internet has replaced other information sources as their main source, and this has had a significant impact on consumer behaviour. The advent and growth of the internet has expanded the ways in which consumers can obtain information about products by posting comments from other consumers online and giving them the chance to participate in electronic word-of-mouth (e-WOM), which is a means of offering advice related to consumption. This study aims to evaluate the influence of online consumer reviews, one kind of e-WOM, on purchase decisions. The connection between reviews and purchase behaviour is another area of emphasis for this empirical investigation. The findings demonstrate that customer reviews have a causal influence on consumers' purchase decisions and how they select products. The findings and their ramifications are finally examined.

- **(Grover & Goyal, 2020) has done research on “A study on consumer's buying behaviour based on customer's online reviews.”**

Online product reviews have grown in strength as a source of information influencing purchasing decisions with the rise of digital and social media. On websites for online shopping and electronic commerce, customer reviews serve as a type of feedback. These days, customers may always read online product reviews thanks to resources like smartphones, internet connectivity that is available around-the-clock, and other tools for accessing websites. Product reviews are now a common and useful marketing and sales tool that influences consumer behaviour when it comes to making purchases. These platforms include online retailer websites, E-Commerce websites, brand websites, brand community blogs, and third-party reviews, where consumers can participate and engage in discussions about their purchase and consumption experience. Customer reviews have the potential to impact overall product sales and assist customers in making purchases. The purpose of this research paper is to determine whether customer reviews and consumer purchasing behaviour are correlated. The purpose of this study is to separate the impact of various internet reviews on consumers' intentions and purchasing behaviour. Data from the sample is gathered using a questionnaire using a five-point Likert scale.

- **(Moisescu, 2009) has done research on “The importance of brand awareness in consumer's buying decision and perceived risk assessment.”**

Brand awareness, a fundamental aspect of brand equity, is often considered essential for consumers' purchasing decisions. It serves as a key factor in including a brand within the consideration set. Brand awareness influences consumers' perceived risk assessment and their confidence in making purchase decisions. There are two facets of brand awareness: unaided (brand recall) and aided (brand recognition). Each facet plays a varying role in influencing buying decisions and perceived risk. This study aims to highlight the significance of unaided brand awareness in consumers' purchasing choices and the importance of aided brand awareness when evaluating perceived risks associated with purchases. The analysis focuses on durable versus non-durable products, specifically among urban Romanian consumers.

- **(Arkonsuo, Kaljund, & Leppiman, 2014) has done research on “Consumer Journey from First Experience to Brand Evangelism.”**

This study delves into the lived reality of consumer-brand interactions, exploring how consumers perceive their journey from initial experiences to forming deep emotional connections with a brand. By analyzing qualitative interviews with

brand evangelists, we follow the experience pyramid model. This model starts with the motivational level, moves to the physical level where the evangelist encounters the brand, and finally reaches the experiential level where emotional bonds with the brand become apparent. For these customers, the brand takes on a singular, meaningful significance. The study contributes to experience marketing by providing insights into the meaning of brand-related experiences for consumers, while also helping marketers understand the development of strong emotional bonds between brands and their customers. Additionally, the research sheds light on identifying brand evangelists.

- **(Rambabu & Porika, 2020) has done research on “Packaging strategies: knowledge outlook on consumer buying behaviour.”**

Packaging is an important tool in a time of great potential because it influences customer choices and provides a platform for brand communication. The purpose of this study is to investigate how various packaging strategies affect consumers' purchasing decisions. Using structured questionnaires, data from 836 respondents in two Indian states' largest cities were gathered, and SPSS software was used for analysis. The findings point to the necessity of creative packaging designs for marketing success, as media exposure, packaging techniques, and elements all have a substantial impact on consumer purchasing behaviour. The small sample size and possible disparities in consumer views between urban and rural areas are drawbacks, though. However, the survey emphasises how important packaging is becoming in terms of satisfying consumer demands and bringing in new business.

- **(Vidya & Selvamani, 2019) has done research on “Consumer Behaviour Towards Online Shopping – an Analysis with Product Dimensions.”**

Online shopping consumer behaviour is dynamic, multifaceted, and impacted by a number of variables. This study looks at how consumers behave when they purchase online, with a particular emphasis on aspects linked to products. SPSS analysis and a descriptive study methodology were used to examine data from 412 respondents in the districts of Erode and Trichy. The findings indicate that, in general, internet buyers are happy with the dimensions of products. The awareness of online purchasing is greatly influenced by factors such as payment preferences, frequency of purchases, education level, and knowledge about online shopping. Increasing promotion and paying attention to remote delivery are essential for improving online sales.

- **(Karjalainen & Snelders, 2010) has done research on “Designing Visual Recognition for the Brand.”**

This paper explores how companies like Nokia and Volvo strategically utilize design to express their brand values. Through an in-depth case study, it's revealed that both companies have distinct design philosophies aligned with their brand identities. They control the semantic transformation process, connecting design features with brand values, allowing strategic decision-making over design-brand relations. Lead products serve as brand ambassadors, guiding subsequent product development. Nokia's approach, with a broader product portfolio, necessitates more flexible design applications compared to Volvo's more explicit design-brand connections. Six key drivers for differences between the companies are identified, emphasizing the tight connection between design, branding, and strategic decision-making. These insights are valuable for brand, product, and design managers seeking to effectively communicate their brand values through design.

- **(Thoma & Williams, 2013) has done research on “The devil you know: The effect of brand recognition and product ratings on consumer choice.”**

The Recognition Heuristic (RH) has been the main focus of previous research on recognition in decision making. We investigate the influence of recognition in preferential choice and find that, in spite of higher quality ratings, participants mostly preferred well-known brands. Negative brand ratings, on the other hand, affected decisions and resulted in slower response times, indicating that recognition plays a vital role as an early decision-making stage rather than just serving as a compensating strategy.

- **(Heitmann, Landwehr, Schreiner, & Heerde, 2020) has done research on “Leveraging Brand Equity for Effective Visual Product Design.”**

The visual appeal of many consumer goods plays a critical role in determining their success in the market. While a growing body of research is showing how objective design features influence consumer choices, this research has not yet included the fact that product design takes place inside the framework of a brand's equity. The topic of this study is how to use brand equity to a product's advantage while creating its visual design. It specifically looks at the significance of two important strategic visual design choices: segment typicality, which is similarity to the competition set, and brand typicality, which is similarity within the brand's range. The authors contend, based on fluency theory, that low-equity brands gain less from segment typicality and more from brand typicality than high-equity brands. The study offers empirical support for this conjecture and, consequently, consequences for strategic product design and visual design theory. It does this by using data from the U.S. auto market that tracks market shares of 456 automobile models of 39 major brands operating in seven market segments over a 13-year period.

- **(Akar, Ezgi, Nasir, & Aslihan, 2015) has done research on “A review of literature on consumers' online purchase intentions.”**

The Internet's rapid expansion and impact on daily life have given rise to a new type of consumer known as the "online consumer." Compared to typical consumers, these consumers are influenced by different reasons and have different buying behaviours. This paper's primary objective is to illustrate, by a thorough study of pertinent research, the elements that influence customers' intentions to make online purchases. One hundred articles that are pertinent are found after a thorough review of the literature. The elements affecting customers' intents to make online purchases that have been looked at in these chosen articles are categorised under pertinent headings based on how comparable they are. The study's findings show that, whereas most of the research focuses on how customer, merchant, and product attributes affect consumers' intentions to make online purchases, social media's influence is typically underappreciated in the literature. This is explained by the fact that the field of study is relatively new. Our paper's uniqueness comes from outlining a study agenda for customers' intentions to make online purchases.

- **(Meskaran, Ismail, & Shanmugam, 2013) has done research on “Online Purchase Intention: Effects of Trust and Security Perception.”**

Numerous businesses choose to establish their online presence due to the rapid expansion of e-commerce and online transactions. Since making purchases online using the Internet is currently less common than other online activities, it is important to investigate the factors that influence consumers' intentions to make purchases online. The underlying theories used to examine the variables influencing online purchasing intention include Theory of Planned Behaviour (TPB), Theory of Reasoned Action (TRA), and Theory Acceptance Model (TAM). Based on related studies, trust and security are recognised as the two primary elements that influence online buy intention. Therefore, it is thought that enhancing online purchase intention requires addressing the antecedents of trust and security. This study looks at the causes of trust and security and offers a thorough model for online purchase intention that takes into account direct effect elements.

- **(Wani & Ali, 2016) has done research on “Determinants of Online Purchase Intentions: A Study of Indian Buyers.”**

An investigation on the factors influencing online buying intentions was conducted in India. Social impact and brand image were deemed to be unimportant among the criteria examined. On the other hand, favourable attitudes on e-WOM and prior favourable experiences with online purchasing were found to be important factors influencing Indian consumers' propensity to make online purchases. With 159 replies out of 250 questionnaires distributed, the study—which used structural equation modelling and confirmatory factor analysis—highlights the changing trends in Indian consumers' preferences for online purchasing. The study's conclusions show that Indian consumers' intentions to make online purchases are primarily influenced by their favourable attitudes about e-WOM and their prior positive experiences. It was discovered that customers' intentions to make online purchases were not significantly impacted by social influence or brand image.

III RESEARCH METHODOLOGY

This research investigates into how brand awareness and online purchase intention are affected by product packaging design and online customer reviews. This study is significant as it addresses the growing importance of e-commerce and the impact of visual and informational cues on consumer behaviour in online shopping contexts. Below is a thorough explanation of the methodology:

3.1 Research Design

This research employs a **causal-comparative design**. We compare groups of consumers exposed to different packaging designs and online review conditions to understand the causal effect on brand recognition and purchase intention.

3.2 Sample Design

The research paper utilized a random sampling method to ensure the representation of diverse perspectives in the study. The random sampling approach aimed to minimize selection bias and enhance the generalizability of the findings to the broader population of interest. By gathering responses from a randomly selected subset of the target population, the study sought to capture a representative sample reflective of varied demographics and perspectives.

3.3 Survey Instrument and Sample Size

A questionnaire survey comprising 25 closed questions was distributed via online platforms to a sample population of 130 individuals. Out of this initial pool, 100 respondents completed the survey, providing valuable insights into the research objectives.

3.4 Data Collection:

Primary:

The primary data for this research is collected through questionnaires directly administered to consumers. The questionnaire was intended to collect specific data on consumer views, attitudes, and actions about product packaging design, brand recognition, online customer reviews, and intention to purchase. Through direct consumer engagement, the research seeks to gather first-hand insights into their perspectives and experiences, generating rich and relevant data for analysis.

Secondary:

In addition to primary data collection, secondary sources were utilized to enrich the research. Case study books and relevant research papers sourced from the literature review were monitored for further insights and information.

Objectives:

- Evaluate the impact of product packaging design on brand recognition.
- Assess the influence of online customer reviews on brand recognition.
- Examine the combined effect of packaging design and online reviews on brand recognition.
- Investigate the direct and indirect effects of packaging design and online reviews on online purchase intention.

3.5 Data Analysis

Statistical software such as SPSS or R will be utilized to analyze the collected data. Descriptive statistics, including means and standard deviations, will summarize key characteristics of the dataset, offering insights into central tendencies and variability. Correlation analysis will assess relationships between variables like packaging design, online reviews, brand recognition, and purchase intention, revealing patterns and associations. Regression analysis will identify independent effects of packaging design and online reviews on brand recognition and purchase intention, while controlling for other factors. This analysis will highlight the relative importance of these variables in shaping consumer perceptions and behavior.

3.6 Ethical Considerations

- Obtained informed consent from participants before data collection.
- Maintained participant anonymity and confidentiality.

IV DATA ANALYSIS AND INTERPRETATION

4.1 Demographics of Respondents

Age:

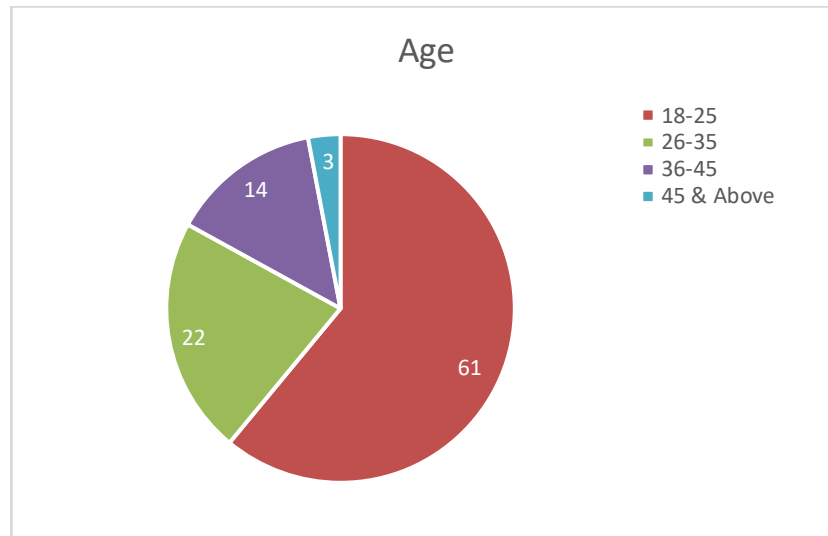


Fig. 1. Respondent's Age

Data Interpretation: The above chart represents the age group of the respondents. It can be interpreted that a majority of the respondents fall in the age bracket of 18-25 years with a share of 61% of the total chart. Against this lies the age group of 45 and above years with the minimum share of 3% in the total chart.

Gender:

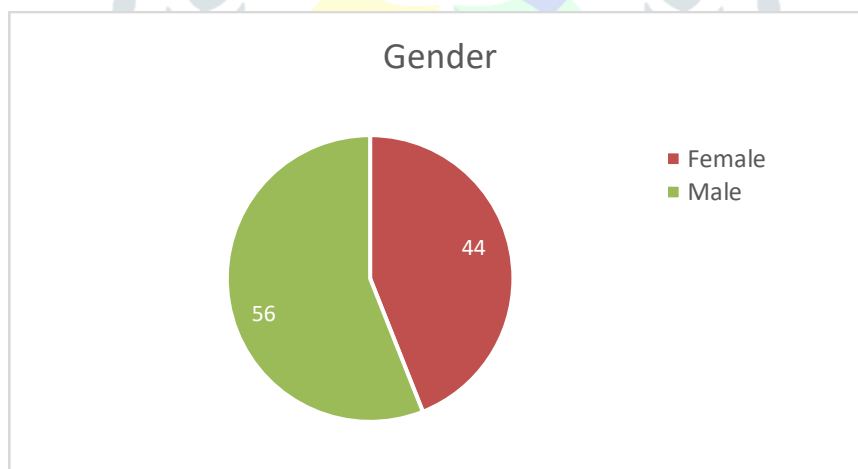


Fig. 2. Gender of the Respondents

Data Interpretation: The above chart represents the gender of the respondents. It can be interpreted that the majority of the share is taken up by male respondents with a total of 56%, whereas female respondents hold a share of 44% in the total chart.

Occupation:

Occupation		
	N	%
Business Owner	16	16.0%
Employee	36	36.0%
Student	48	48.0%

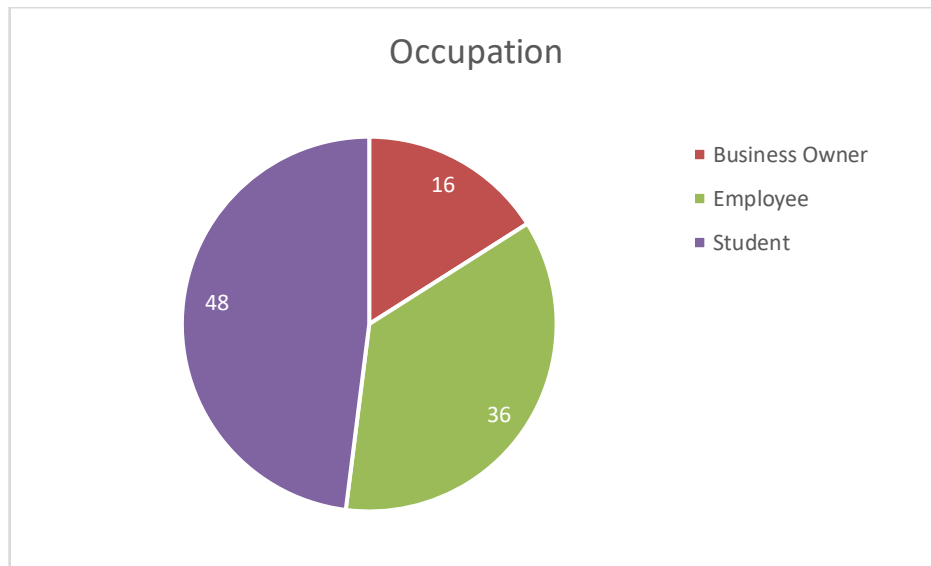


Fig. 3. Occupation of the Respondents

Data Interpretation: The above chart represents the occupation of the respondents. It can be interpreted that the majority of the share is taken up by students with a total of 48%, whereas employees hold a share of 36% and business owner hold a share of 16 in the total chart.

Income:

Income		
	N	%
10,00,000-15,00,000	16	16.0%
15,00,000-20,00,000	9	9.0%
20,00,000 and above	17	17.0%
5,00,000-10,00,000	8	8.0%
Less than 5,00,000	50	50.0%

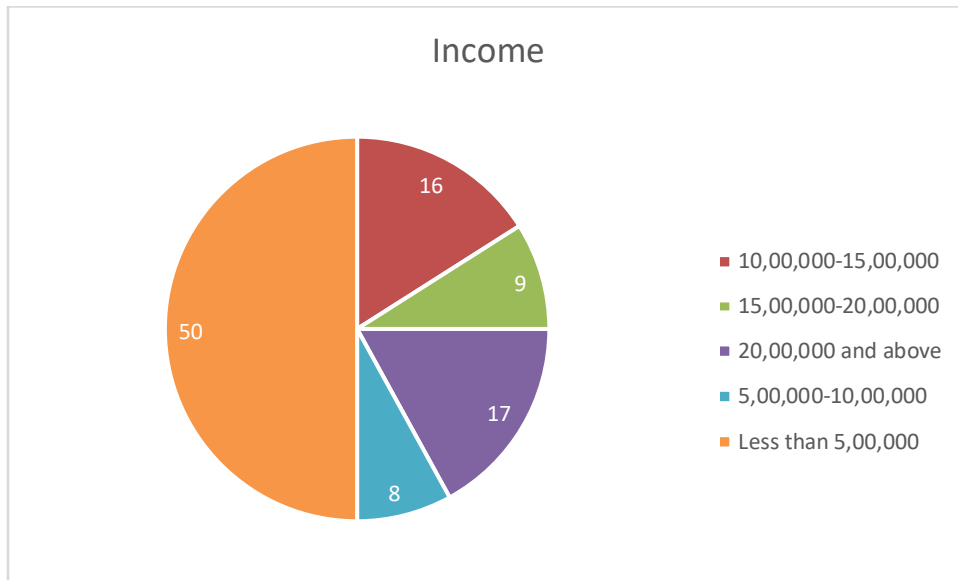
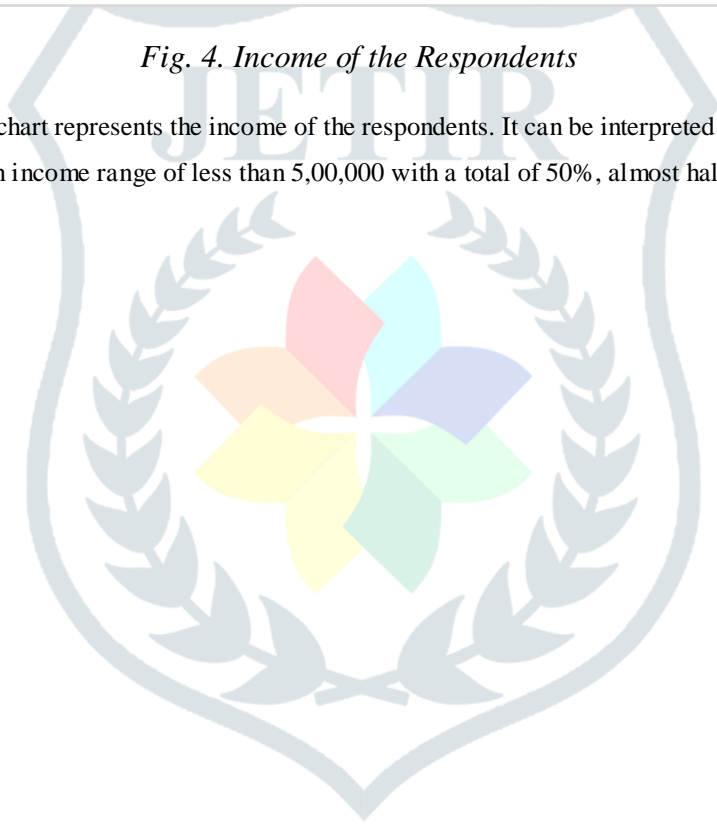


Fig. 4. Income of the Respondents

Data Interpretation: The above chart represents the income of the respondents. It can be interpreted that the majority of the share is taken up by respondents with an income range of less than 5,00,000 with a total of 50%, almost half the total chart.



4.2 Descriptive Analysis

When evaluating how product packaging design and online customer reviews affect brand awareness and online purchase intention, descriptive analysis is a crucial tool. Through the analysis of data's fundamental tendencies, variability, and patterns, researchers can obtain important understandings of consumer behaviour. The distribution of thoughts and attitudes on product packaging design and online reviews, as well as normal levels of brand recognition and purchase intention, can be understood through metrics like mean, standard deviation, and range. By examining the interactions between variables, comparative analysis can be used to assess how important packaging design is in comparison to internet evaluations.

Scale	Interpretation
4.30 – 5.00	Strongly Agree
3.50 – 4.20	Agree
2.70 – 3.40	Neutral
1.90 – 2.60	Disagree
1.80 - 1	Strongly Disagree

Table i. Scoring of Responses

Descriptive Statistics for Product Packaging Design and Brand Recognition Relation:

	Descriptive Statistics									
	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis		
						Statistic	Std. Error	Statistic	Std. Error	
The packaging design influences my decision to purchase a product.	100	1	5	3.68	.973	-.925	.241	.777	.478	
I tend to trust products with appealing packaging designs more than those with plain designs.	100	1	5	3.76	1.006	-.834	.241	.590	.478	
Packaging design is an important factor in creating brand recognition.	100	2	5	3.94	.941	-.696	.241	-.291	.478	
I am more likely to remember a brand with distinctive packaging design.	100	1	5	3.93	1.027	-.941	.241	.511	.478	
Packaging design affects my perception of the product's quality.	100	1	5	3.78	1.040	-.862	.241	.184	.478	
Recognizable packaging makes it easier for me to identify products on the shelf.	100	1	5	3.87	.950	-.745	.241	.411	.478	
I am more likely to recommend products with eye-catching packaging to others.	100	1	5	3.75	1.029	-.898	.241	.477	.478	
I am more likely to try new products if they have appealing packaging.	100	1	5	3.72	.986	-.829	.241	.682	.478	
I believe that well-designed packaging reflects positively on the brand's overall image.	100	1	5	3.97	.969	-1.300	.241	1.961	.478	
I believe that well-designed packaging reflects positively on the brand's overall image.	100	1	5	3.96	.963	-.888	.241	.583	.478	
Valid N (listwise)	100									

Table ii. Descriptive Statistics for Product Packaging Design and Brand Recognition Relation

Data Interpretation:

- The average score for all of the survey questions is between 3.68 and 3.97, with a standard deviation between .941 and 1.040. This suggests that most people agreed with the statements about packaging design, but there was also some variation in opinion.
- The skew for all of the questions is negative, which means that the distribution of responses is skewed towards the higher end (i.e. there are more people who agree with the statements than disagree).

Here is a discussion of the findings:

- The survey results show that people are more likely to purchase products with appealing packaging designs than those with plain designs. They are also more likely to trust products, remember brands, and perceive products as being of higher quality if the packaging is well-designed.
- The survey results also show that people are more likely to recommend products with eye-catching packaging to others and to try new products if they have appealing packaging. This suggests that packaging design can be an important marketing tool.
- Finally, the survey results show that people believe that well-designed packaging reflects positively on the brand's overall image.

Overall, the survey results suggest that packaging design is an important factor in consumer decision-making. Products with well-designed packaging are more likely to be purchased, remembered, and recommended to others.

Descriptive Statistics for Online Customer Review and Brand Recognition Relation

	Descriptive Statistics								
	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Online customer reviews influence my decision to purchase a product.	100	1	5	3.83	1.016	-1.067	.241	1.159	.478
Positive online reviews make me more likely to trust a brand.	100	1	5	4.00	1.005	-1.097	.241	.988	.478
I consider online reviews an important factor in assessing product quality.	100	1	5	3.87	1.031	-1.031	.241	1.035	.478
I am more likely to purchase a product from a brand with a high number of positive online reviews.	100	1	5	4.07	1.047	-1.436	.241	2.111	.478
Online reviews contribute to my overall perception of a brand's reputation.	100	1	5	3.81	1.002	-.960	.241	.848	.478
Negative online reviews deter me from buying a product.	100	1	5	4.04	1.024	-1.405	.241	2.003	.478
I trust online reviews as much as personal recommendations from friends or family.	100	1	5	3.73	1.053	-.814	.241	.201	.478
Online reviews provide valuable insights into the experiences of other customers.	100	1	5	4.02	1.063	-1.275	.241	1.368	.478
Brands with a strong online presence tend to have better brand recognition.	100	1	5	3.94	1.052	-1.099	.241	.843	.478
Online reviews play a significant role in shaping a brand's image.	100	1	5	4.03	1.058	-1.417	.241	1.917	.478
Valid N (listwise)	100								

Table iii. Descriptive Statistics for Online Customer Review and Brand Recognition Relation

Data Interpretation:

- **All survey respondents (100) indicated that online reviews influenced their decision to purchase a product in some way.** The average score was 3.83 on a 5-point scale, with a standard deviation of 1.02. This suggests that most people consider online reviews somewhat important in their decision making.
- **Positive online reviews tend to make people more likely to trust a brand (average score 4.00).** This suggests that positive reviews can be a powerful marketing tool.
- **Similarly, people consider online reviews an important factor in assessing product quality (average score 3.87).** So, companies should pay attention to the quality of the products they sell and address any negative reviews.
- **People are more likely to buy a product from a brand with a high number of positive reviews (average score 4.07).** This means that companies should encourage customers to leave reviews, and respond to both positive and negative reviews in a professional manner.

Overall, the data suggests that online reviews are an important factor in customer purchasing decisions. Companies should take steps to encourage positive reviews and address negative ones.

Descriptive Statistics on Impact of Online Customer Reviews and Product Packaging Design on Purchase Intention

	Descriptive Statistics									
	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis		
						Statistic	Std. Error	Statistic	Std. Error	
Online customer reviews and product packaging design both play significant roles in my purchase decisions.	100	1	5	3.69	1.032	-1.032	.241	.893	.478	
A product with positive online reviews but poor packaging design may deter me from making a purchase.	100	1	5	3.71	1.149	-.877	.241	.132	.478	
Both online reviews and product packaging design influence my purchase intention equally.	100	1	5	3.71	1.038	-1.106	.241	.957	.478	
I am willing to try a product with plain packaging if it has overwhelmingly positive online reviews.	100	1	5	3.94	.941	-.844	.241	.327	.478	
I pay attention to both online reviews and product packaging design when evaluating a product's quality and value.	100	1	5	3.81	.929	-1.308	.241	2.347	.478	
Valid N (listwise)	100									

Table iv. Descriptive Statistics on Impact of Online Customer Reviews and Product Packaging Design on Purchase Intention

Data Interpretation:

- Statement one says that online customer reviews and product packaging design both play significant roles in purchase decisions. This has the highest mean rating (3.69) with a standard deviation of 1.032.
- Statement two says that a product with positive online reviews but poor packaging design may deter someone from making a purchase. This statement has a mean rating of 3.71 and a standard deviation of 1.149. There is more variation in the responses to this statement than the first statement, but the average score suggests agreement.
- Statement three says that both online reviews and packaging design influence purchase intention equally. This statement also has a mean rating of 3.71 with a standard deviation of 1.038, suggesting a similar level of agreement as statement two.

- Statement four says that someone would be willing to try a product with plain packaging if it has overwhelmingly positive reviews. This statement has the highest mean rating (3.94) and the lowest standard deviation (.941), suggesting the strongest level of agreement among the five statements.
- Statement five says that someone pays attention to both online reviews and packaging design when evaluating a product's quality and value. This statement has a mean rating of 3.81 and a standard deviation of .929, which suggests a high level of agreement.

In conclusion, the data suggests that all 100 people surveyed consider both online reviews and packaging design when making a purchase decision. However, positive reviews seem to hold more weight than packaging design, especially when the packaging is plain.

4.3 Correlation Analysis

Correlations				
		The packaging design influences my decision to purchase a product.	Online customer reviews influence my decision to purchase a product.	Online customer reviews and product packaging design both play significant roles in my purchase decisions.
The packaging design influences my decision to purchase a product.	Pearson Correlation	1	.466**	.534**
	Sig. (2-tailed)		<.001	<.001
	N	100	100	100
Online customer reviews influence my decision to purchase a product.	Pearson Correlation	.466**	1	.566**
	Sig. (2-tailed)	<.001		<.001
	N	100	100	100
Online customer reviews and product packaging design both play significant roles in my purchase decisions.	Pearson Correlation	.534**	.566**	1
	Sig. (2-tailed)	<.001	<.001	
	N	100	100	100
**. Correlation is significant at the 0.01 level (2-tailed).				

Table v. Pearson Correlation Analysis

Data Interpretation:

The table shows the results of a Pearson correlation analysis between three packaging design, online customer reviews, and purchase decision. All correlations were statistically significant ($p < .001$).

- Packaging design has a positive correlation with purchase decision ($r = .466$). This means that as the perceived quality of the packaging design increases, the likelihood of a purchase decision also increases.
- Online customer reviews also have a positive correlation with purchase decision ($r = .534$). This means that as the perceived quality of online customer reviews increases, the likelihood of a purchase decision also increases.
- Interestingly, there is a weak positive correlation between packaging design and online customer reviews ($r = .466$). This means that there is a slight tendency for products with better perceived packaging design to also have better perceived online customer reviews.

Here is a discussion of the findings:

- Consumers show a significant positive correlation ($r = 0.466, p < 0.001$) between packaging design and their purchase decisions.
- This underscores the importance for businesses to invest in visually appealing packaging to boost product marketability and consumer appeal.
- There is a strong positive correlation ($r = 0.566, p < 0.001$) between online customer reviews and purchase decisions.
- This reflects the increasing influence of digital word-of-mouth on consumer behaviour, emphasizing the need for businesses to actively manage online feedback to maintain positive perceptions.
- The correlation ($r = 0.534, p < 0.001$) between packaging design and online customer reviews suggests a complementary relationship.
- Consumers consider both factors when evaluating a product, with positive reviews reinforcing the appeal of well-designed packaging and vice versa.
- Businesses should acknowledge the significance of packaging design and online reviews in shaping consumer perceptions and purchase decisions.
- By investing in attractive packaging and actively monitoring online feedback, businesses can enhance their products' competitiveness and appeal in today's digital marketplace.

Nonparametric Correlations

Correlations

		The packaging design influences my decision to purchase a product.		Online customer reviews influence my decision to purchase a product.		Online customer reviews and product packaging design both play significant roles in my purchase decisions.
Spearman's rho	The packaging design influences my decision to purchase a product.	Correlation Coefficient	1.000	.335**	.388**	
		Sig. (2-tailed)	.	<.001	<.001	
		N	100	100	100	
	Online customer reviews influence my decision to purchase a product.	Correlation Coefficient	.335**	1.000	.405**	
		Sig. (2-tailed)	<.001	.	<.001	
		N	100	100	100	

Online customer reviews and product packaging design both play significant roles in my purchase decisions.	Correlation Coefficient	.388**	.405**	1.000
	Sig. (2-tailed)	<.001	<.001	.
	N	100	100	100

** Correlation is significant at the 0.01 level (2-tailed).

Table vi. Spearman's Correlation Analysis

Data Interpretation:

The data in the image shows a statistically significant correlation between online customer reviews, product packaging design and a person's decision to purchase a product.

- Correlation is a statistical measure that indicates the extent to which two variables tend to move together. A correlation coefficient can range from -1 to +1. A coefficient of +1 indicates a perfect positive correlation, which means as the value of one variable increases, the value of the other variable also increases. A coefficient of -1 indicates a perfect negative correlation, which means as the value of one variable increases, the value of the other variable decreases. A coefficient of 0 indicates no correlation between the two variables.
- In the table, all the correlation coefficients are positive. The coefficient between packaging design and purchase decision (0.388) is slightly higher than the coefficient between online customer reviews and purchase decision (0.335).
- Statistically significant correlations are indicated by a p-value of less than 0.05. In all the cases in the table, the p-value is less than .001, which means the results are statistically significant.

Here is a discussion of the findings:

The findings of this study suggest that both online customer reviews and product packaging design play a role in a person's decision to purchase a product. Interestingly, the correlation between packaging design and purchase decision was slightly stronger than the correlation between online customer reviews and purchase decision.

These findings are important for businesses to consider, as they highlight the importance of investing in both product packaging design and strategies to encourage positive online customer reviews.

V CONCLUSION

In this study, we thoroughly examined the effects of online customer reviews and product packaging design on brand recognition and purchase intention. Through descriptive analysis and correlation analysis, we gained valuable insights into consumer behaviour patterns and preferences. According to our research, online customer reviews and product packaging design have a big impact on how consumers make decisions. In terms of packaging design, the vast majority of respondents concurred that attractive packaging enhances their perceptions of product quality, brand credibility, and brand image. Furthermore, enticing packaging design builds brand loyalty and encourages referrals to others in addition to increasing the possibility of purchase. In a similar vein, online reviews from customers have become an important aspect in determining what to buy. It has been discovered that favourable online reviews increase purchase intention, perceived product quality, and brand trust. It was very important to have a lot of favourable ratings, which shows how important it is to actively manage and request online comments. Additionally, our research showed that although packaging design and online reviews are significant factors, favourable evaluations have a greater impact on consumers' decisions to buy, particularly in cases when the product packaging is straightforward. Customers demonstrated the substantial influence of internet evaluations on purchasing decisions by indicating that they were more

likely to ignore simple packaging if a product had an overwhelming number of good ratings. All things considered, our research emphasises how crucial it is for marketing tactics to take into account both product packaging design and online consumer reviews. In addition to making investments in eye-catching packaging design, businesses can strive to obtain favourable online evaluations in order to improve brand perception. By understanding the interplay between these factors, businesses can effectively shape consumer perceptions, drive purchase intention, and ultimately foster brand success in today's competitive marketplace.

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