



## The Impact of Visual Packaging Design on Perceived Food Product Quality and Brand Preference with Moderating Effect of Gender

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### Abstract

The study aims to explore the influence of visual packaging design on perceived food product quality and brand preference with a moderating effect of gender. The study used the fast food industry to analyze how fast food products' packaging (colors, logos, graphics) impacts consumer perception of the product. An adopted questionnaire was used in the analysis. The study offers directions for understanding the effects of visual packaging on brand preference and perceived quality.

**Keywords:** Fast food products, Visual product packaging design, Perceived quality, Brand preferences

### 1. Introduction

Packaging is a technique that protects the product for storage, sale, and use. It is a marketing tool that is used nowadays to attract consumers. Consumers are first exposed to the product packaging and then experience the product (Orth & Marchi, 2007). Most spontaneous buying occurs because of the product exhibit (Ghani & Kamal, 2010). Packaging is an art or technology that protects a product for storage, sale, and use. Preparing the goods for warehousing, transport, sale, and use is a process. Packaging protects the product, and its labeling also provides consumers with information about its attributes, usage, manufacturing company, expiration dates, etc. Sometimes, people perceive the quality of the product by its packaging. Product labeling can change consumers' perceptions of the product. It can add value to the product. Nowadays, there is immense competition in companies, and product quality can help companies choose the right product. Eco-design packaging also influences the consumer response. Many companies are moving towards green packaging design for their products. Walmart is also working on a natural packaging project. McDonalds' packaging is also going green. They are using paper bags and other recyclable material in their packaging. Packaging features are visual and verbal cues (Kauppinen et al., 2012). Visual attributes like graphics, color, silhouette, volume, and packaging material. At the same time, verbal attributes consist of information elements. These cues want different types of cognitive processing. Verbal cues need intended effort to process into mental images, whereas visual cues process unintentionally and unconsciously (Mueller et al., 2010). Packaging design focuses on verbal cues to compare high-involvement products in a hoard. The difference in involvement products' packaging focal point is visual cues that provide psychological and physical benefits (Sehrawet & Kundu, 2007). Low-involvement products are purchased regularly without much thought and searching, like food and drink items because they have low value and high volume (Sehrawet & Kundu, 2007). All packaging elements have a positive effect on consumer brand practice. It directs brand loyalty and the purchase decision. Packaging is valuable for attracting customers and convenience marketers and gaining a competitive advantage. Brand preference refers to the mode of selecting a specific product over a comparable product brand. Hence, packaging design can be used to generate brand equity (Vazquez et al., 2003; Aydemir, 2024). Brand preference is a measure of brand faithfulness in which a consumer will select a particular brand without competing brands and choose a substitute if that brand is unavailable. Brand and price are essential elements when purchasing a food product. Today, several brands are available on the market because of the advancement and development of technology in the production and distribution of products. It may increase the competition among the brands. Consumers face difficulty in the selection of a brand. Packaging can be used for this purpose. It can inform, persuade, and remind consumers about the product. Packaging design puts great importance on brand preferences (Wang et al., 2013; Roussel & Audi, 2024). Quality is the standard of something that is measured against other similar products. It is the degree of excellence of a product. The product can satisfy its customers. It is the characteristic of a product to impress its customers (Wang & Heitmeyer, 2006; Ullah & Ali, 2024). Perceived product quality is the consumer's opinion about product superiority and its excellence (Anselmsson et al., 2007; Rukh et al., 2021; Ibrahim & Rasheed, 2024). Product quality varies from product to product or product to service. Consumer expectation also leads to different levels of quality of the same product. When there is extreme competition in the marketplace for the selection of a brand, quality is the fundamental factor in analyzing a product (Hassan et al., 2010). With the help of perceived quality, a consumer can differentiate the products of different brands (Athar et al., 2021; Atiq et al., 2022; Mukhtar et al., 2021; Rath, 2024; Shaharudin et al., 2011; Yasir et al., 2021).

### 2. Theoretical Framework

The study proposes that packaging design is vital in creating consumer preferences. Consumers prefer a brand that provides environmentally friendly packaging. Through packaging design, consumers perceive the quality of the product. Consumers perceive quality and prefer brand-by-product packaging. The theory of consumers supports the research. People make their purchase decisions according to their individual preferences. The self-concept theory is applied here to brand preferences. Self-concept theory relates to our beliefs, preferences, and attitudes toward our existence. Everyone has different personalities, abilities, and preferences. Self-concept theory imagines that consumers make predictions about brand preferences by having a perception of them. Consumers prefer a brand whose image is similar to their self-concept. Product packaging can be a strategic tool for brand equity development and differentiation. Herzberg's Motivator-Hygiene Theory (M-H Theory) is very supportive of analyzing how consumers evaluate the product by understanding different aspects, e.g., people are content if a milk package extends its expiry date.

#### 2.1. Visual Packaging Design and Perceived Food Product Quality

Quality is the standard of something that is measured against other similar products. According to Sehrawet and Kundu (2007), consumers form their perception of the product by exposing and evaluating verbal and visual packaging attributes. Moreover,

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according to Holmes et al. (2012), consumers consider product quality based on the packaging attributes in the food market. Dimra and Skuras (2003) stated that product information manipulates consumers' perceptions of quality and preferences. According to Sehrawet and Kundu (2007), by exposing and evaluating verbal and visual packaging attributes, consumers can form their perception of the product. Furthermore, according to Holmes et al. (2012), consumers consider product quality based on the packaging attributes in the food market.

H1: Packaging design (Green packaging) positively persuades perceived food product quality.

### 2.2. Visual Packaging Design and Brand Preferences

Brand preferences assist the consumer in picking a product brand more than the parallel product brand. Packaging helps us to differentiate the products. Today, brands are available in the market because of the advancement in production and distribution numbers. Consumers have difficulty selecting products and differentiating them. Therefore, packaging facilitates consumers to remind consumers that their products are superior to other brands.

Furthermore, convince them to purchase that product. So packaging plays an imperative role in brand preferences (Wang et al., 2013). Bart et al. (2017) stated that consumer psychologists have premeditated how a consumer builds up a brand preference through constructive relations between the brand and consumption settlement of the primary product. Yamoah et al. (2005) explained that packaging is a primary source of differentiation among different brands. So, business employees can use packaging to remind consumers that their products are superior to other brands.

H2: Packaging design (Green packaging) positively influences brand preferences.

### 2.3. Gender as a moderator between Packaging Design and Perceived Food Product Quality and Brand Preferences

Peterson and Hughey (2004) defined that the moderating role of gender has been extensively examined in research commencing by a range of work-related associations, such as stress role, work/non-work conflict, job satisfaction, job performance, role stress, intention to quit, job satisfaction, organizational rationality behavior, and turnover social cohesion. We use gender as a moderator in our analysis.

H3: Gender significantly moderates the relationships between packaging design, perceived food product quality, and brand preferences.

In this study, we must analyze how different genders react to packaging design. Are the males more conscious about green packaging or not? What do females think about packaging design? Who prefers brands according to their perception of the quality? When there is extreme competition in the marketplace for the selection of a brand, quality is the basic factor in analyzing a product (Hassan et al., 2010). With the help of perceived quality, a consumer can differentiate the products of different brands (Shaharudin et al., 2011). Packaging design (Green packaging) positively influences perceived food product quality. Consumers consider that products with good packaging are safer. Consumer builds a quality assessment based on packaging attributes. When the package empathizes with high quality, the consumer assumes the product is of high quality. Packaging Design (Green packaging) positively influences Brand Preferences because if a brand offers a product with fine packaging, it provides all its process information, and consumer trust that brand more than others. For example, consumers prefer UVAS meat shops because their meat packaging has all the details about the animal, its farm, its age, etc. If a consumer perceives the good quality of a specific brand's product, he always prefers that brand. Hence, based on hypotheses H1, H2, and H3, a conceptual model is developed to determine its effect on the relationship between packaging design, brand preferences, and perceived food product quality.

The direction of the arrows depicts the cause-and-effect relationship as shown in the following figure.

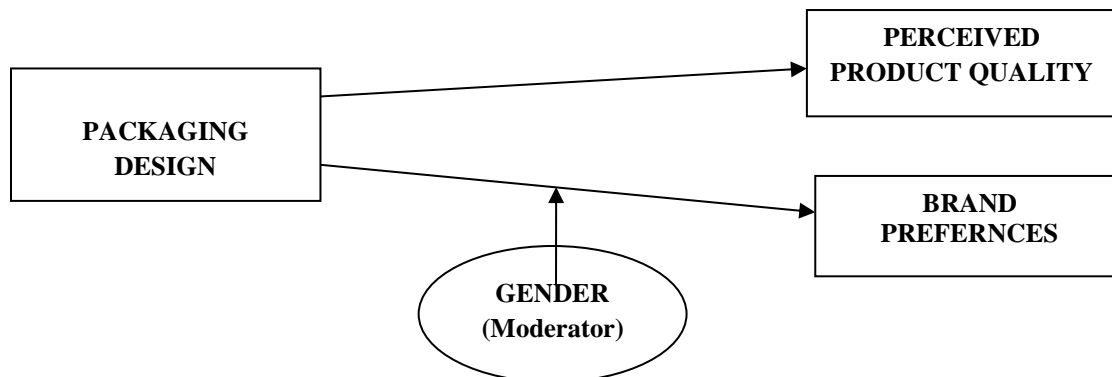


Figure 1: Research Model

### 2.4. Research Method

The data were collected through adopted questionnaires from consumers of fast food in Lahore for the analysis.

Table 1: Measurement Items

Research constructs	Measurement items
Packaging design	The color is good, logo is suitable Size is appropriate; graphics are appealing
Perceived food product quality	overall quality, Superior, guarantee,
Brand preferences	Better than others, use more than others, Preferred over others.

Developed by: S.T. Wang Edward (2013).

The questionnaire is divided into two segments. The first segment gathered demographic information about gender, age qualification, and occupation. Furthermore, the second part gathered information about the targeted variables of packaging, perceived quality, and brand preferences. 5 point Likert scale was used so that accurate information might be gained and analyzed correctly. The work by Underwood et al. (2003) was modified to measure packaging. Different measurement items, like color, logo, size, and graphics, were used. Perceived product quality was measured by two and three separate items, respectively. Three items were taken from Wang et al. (2013) to measure brand preference.

### 2.5. Instrument

This study involves four main variables

- Packaging design-independent variable
- Perceived food product quality-dependent variable
- Brand preferences-dependent variable
- Gender-moderating variable

Accordingly, the questionnaire comprises four parts; the first part is four demographics (e.g., gender, age, education, occupation, ) and the rest of the three parts are for packaging design, perceived food product quality, and brand preferences respectively.

### 2.6. Demographic Characteristics of Sample

Demographic characteristics such as gender, age, qualification, and occupation were considered for this study, and Demographic characteristics in the sample are shown in below table:

**Table 2: Demographics**

Gender	Male	Female	Total		
	169	155	324		
occupation	Employed	Self-employed	student	Others	Total
	103	58	122	41	324
Age	Under 25	25-35	36-45	45-above	Total
	124	108	70	22	324
Academic Qualification	Intermediate	Graduation	Masters	Others	Total
	108	84	86	46	324

## 3. Data Analysis and Results

A total of 324 respondents have given their feedback on packaging design. All responses have been analyzed with the help of two statistical applications, SPSS and AMOS. Different statistical techniques were used for analysis. After entering all the data, SPSS was used for frequency analysis, and AMOS was used to check validity, reliability, and relationships among variables for measuring model reliability. Composite reliability (CR) was used instead of Cronbach's alpha. CR is perfect for measuring the reliability of items of variables (Molaei et al., 2014). The presented values of CR concerning packaging design, perceived food product quality and brand preferences are 0.882, 0.761 and 0.778. Thus the results of CFA signify that the proposed model provides a rational fit to the data with  $\chi^2 = 191.449$ , degree of freedom 62 at probability level (p) = .000. As per criteria of Fornell and Larcker (1981) discriminant validity is also recognized as the value of AVE is greater than MSV and ASV. The proposed model of this study shows significant results of goodness of fit (GFI). The goodness of fit results indicate that the present study model reasonably fits the data. Thus, the CFA results indicate that the hypothesized model is appropriate, and the data used in this study fit the model appropriately. As in Table CFI=.926, which is acceptable according to (Byrne & Bentler, 1999), CFI > 0.90 is acceptable. And the values of GFI and AGFI are 0.917 and 0.878, respectively, representing an acceptable fit to the model as values are >.90 (Hair et al., 2006). RMSEA = .080, which is also acceptable because the value of the RMSEA is about 0.08 or less. Hair et al. (2006) would indicate a close fit of the model in relation to the degrees of freedom. Moderation Analysis After confirming the relationship, we tested the moderating effect of gender on packaging design, perceived food product quality, and brand preferences. Multi-group analysis was done in AMOS; data were examined in male and female groups. For this purpose, a chi-square differences test was conducted. Hence, we tested the hypothesis that the particular moderator did not influence the relationship. In the current study, gender showed no moderating effect. In some situations, different genders think differently, respond differently, and moderate the relationship of variables. However, there are no differences in this research. So, gender does not moderate the relationship between packaging design, brand preferences, and perceived food product quality. The Multi-group analysis approach tests the significance of differences in model relationships.

### 3.1. Hypothesis Testing

After establishing the measurement model, the conceptual model was analyzed. The regression model tests the hypothesis. The value shows the significant relationship between packaging design, perceived food product quality, and brand preferences.

## 4. Discussion

This research aims to investigate the effect of packaging design on brand preferences and food product quality with the moderating role of gender. All data was analyzed using SPSS 22 and AMOS to determine the results. Consumers of McDonald's Lahore were selected for the analysis. Most respondents were male and employed, and most were master's degree holders. Based on the literature review, hypotheses for testing were originated. Three hypotheses were tested, and the data supported two hypotheses. Packaging design, brand preferences, and food product quality have a positive relationship. The outcome represents that packaging is significantly related to brand preferences and food product quality.

**Table 3: Standardized Regression Weights**

Variables	Measurement of variables			Factor loadings	
Packaging design	P1	<---	p	.753	
	P2	<---	p	.679	
	P3	<---	p	.682	
	P4	<---	p	.650	
	P6	<---	p	.765	
	P8	<---	p	.740	
	P9	<---	p	.682	
	Perceived quality	Q1	<---	Q	.710
		Q2	<---	Q	.632
Q3		<---	Q	.806	
Brand preferences	B1	<---	B	.797	
	B2	<---	B	.732	
	B3	<---	B	.669	

**Table 4: Validity and Reliability**

	CR	AVE	MSV	P	Q	B
P	0.882	0.518	0.251	0.720		
Q	0.761	0.516	0.458	0.501	0.718	
B	0.778	0.540	0.458	0.405	0.677	0.735

Note: P=Packaging design; Q =Perceived food product quality; B=Brand preferences.

**Table 5: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
P1	324	1.00	5.00	2.0154	1.05120
P2	324	1.00	5.00	2.1883	.95327
P3	324	1.00	5.00	2.3210	1.09406
P4	324	1.00	5.00	2.1420	1.17438
P6	324	1.00	5.00	2.2346	1.02624
P8	324	1.00	5.00	2.0123	1.12659
P9	324	1.00	5.00	2.0802	1.10152
Q1	324	1.00	5.00	2.2284	.98455
Q2	324	1.00	5.00	2.0957	.96700
Q3	324	1.00	5.00	2.1667	.94591
B1	324	1.00	5.00	2.1944	.96815
B2	324	1.00	5.00	2.2191	.96284
B3	324	1.00	5.00	2.4321	1.00078

**Table 6: Goodness of Fit Indices Model**

Variable	Value	Suggested Value
Chi-square value ( $\chi^2$ )	191.449	
P value	.000	>.05 (Hair et al., 2006)
GFI	.917	>.90 (Hair et al., 2006)
AGFI	.878	>.80 (Hu & Bentler, 1999)
CFI	.926	>.90 (Hu & Bentler, 1999)
RMSEA	.080	< .08 (Hair et al., 2006)

#### 4.1. Theoretical Implications

The study attained its purpose as hypotheses H1 and H2 were statistically supported. Also, a strong association exists between packaging designs, brand preferences, and perceived food product quality. Gender is usually a moderator variable in consumer behavior and marketing (Saad & Gill, 2000). Gender does not moderate the relationship between packaging design, perceived food product quality, and brand preferences. The finding details the pressure of product packaging on brand preferences and food product

quality. The finding suggested that consumers perceive food product quality and favor brands through the packaging designs of the products. This work broadens the current research. It suggests that consumers' perceived quality and brand preferences are produced in the food marketplace through packaging design. This research contributes to the literature. It helps to understand the effect of packaging on brand preferences and food product quality. The outcome exposes that consumer attitude towards packaging directly affects brand preferences and food product quality. Consumers perceive food quality and produce brand preferences by their attitude toward packaging.

**Table 7: Hypothesis Testing**

	R	R square	P value	Results
Brand preference←Packaging design	.347	.120	.000	Accepted
Perceived quality←Packaging design	.422	.178	.000	Accepted

#### 4.2. Managerial Implications

Product packaging is usually used as a communication strategy at the point of purchase. The investigation of packaging assists food marketers in understanding the value of packaging design in creating value for the product in the consumer's mind. Based on the findings, food companies should consider packaging an essential factor. Because of it, they can capture their attention. In the current market situation, there is immense competition. The companies should design the product packaging properly to generate brand preferences. They should emphasize shape, graphics, color, origin country, best-before date, etc. Current research studies the effect of green packaging on consumer minds. This can attract consumers because they prefer environmentally friendly packaging designs.

#### 4.3. Research Limitations and Future Directions

Some research limitations should be judged when applying the results. Firstly, the research design used only McDonalds packaging, while the conclusion may be simulated for other food brands and products. Secondly, the upcoming research can extend the research on a national level to study it in a cultural or sub-cultural context. Thirdly, this research classified the attributes of product packaging into visual cues and verbal cues. These cues stimulate different types of cognitive processing. Future research should focus on how verbal cues influence preferences. Furthermore, further research could compare different levels of consumer involvement.

#### 5. Conclusions

Results were presented to answer the research questions, and the conclusion addresses the following points. The first aim was to analyze the important element of packaging of fast food products. It was exposed that verbal elements are the most imperative elements of a package. For consumers, graphic design, packing material, and package size are the main visual elements, while product information, producer, brand, and country of origin are the main verbal elements used when evaluating packages. The study results discovered that because of time pressure on consumers, the interest in verbal cues like producer and product information decreased, but the interest in brand names increased. The second research plan was to discover the relationship between attitude toward packaging attributes and perceived quality and brand preference. This study explored the relationship between packaging, brand preference and perceived food product quality. Because McDonald's packaging design is environmentally friendly, people prefer its products. Furthermore, it is summarized that packaging design plays a significant role in increasing brand preferences and perceived good quality. If the packaging of a specific brand is attractive and comfortable, people will prefer it more than others.

#### References

- Abbasi, M., & Aghaei, M. (2016). The Effect of Packaging Factors on Customer Purchase Intention with Cognitive-Perceptual Approach (Case Study: Manufacturing-Commerce Firms at Industrial City Of Abbas Abad of Tehran). *International Journal of Humanities and Cultural Studies (IJHCS) ISSN 2356-5926*, 862-874.
- Abdalkrim, G. M., & AL-Hrezat, R. I. S. (2013). The role of packaging in consumer's perception of product quality at the point of purchase. *European journal of business and management*, 5(4), 69-82.
- Anselmsson, J., Johansson, U., & Persson, N. (2007). Understanding price premium for grocery products: a conceptual model of customer-based brand equity. *Journal of Product & Brand Management*, 16(6), 401-414.
- Aydemir, R. (2024). Examining the Cluster Life Cycle in the Process of Economic Development. *Journal of Policy Options*, 7(1), 18-26.
- Boks, C., & Stevels, A. (2007). Essential perspectives for design for environment. Experiences from the electronics industry. *International Journal of Production Research*, 45(18-19), 4021-4039.
- Budhiasri, G. I. (2015). *The Effect of Pictorial Health Warning on Cigarettes Packaging and Need for Cognition to Attitude towards the Brands and Purchase Intention* (Doctoral dissertation, Faculty of Business).
- Charles, W. L., Joe, F. H., & Carl, M. (2011). *Essentials of Marketing: A Marketing Strategy Planning Approach*. Cengage Learning.
- Clement, J. (2007). Visual influence on in-store buying decisions: an eye-track experiment on the visual influence of packaging design. *Journal of marketing management*, 23(9-10), 917-928.
- Dimara, E., & Skuras, D. (2003). Consumer evaluations of product certification, geographic association and traceability in Greece. *European journal of marketing*, 37(5/6), 690-705.
- Ghani, U., & Kamal, Y. (2010). The impact of in-store stimuli on the impulse purchase behaviour of consumers in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 2(8), 155-162.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing* (pp. 277-319). Emerald Group Publishing Limited.

- Ibrahim, M., & Rasheed, A. (2024). Exploring the Link Between Customer Relationship Management and Hotel Performance. *Journal of Policy Options*, 7(1), 1-10.
- Kauppinen-Räsänen, H., Owusu, R. A., & Abeeku Bamfo, B. (2012). Brand salience of OTC pharmaceuticals through package appearance. *International Journal of Pharmaceutical and Healthcare Marketing*, 6(3), 230-249.
- Keller, K. L., Aperia, T., & Georgson, M. (2009). Choosing brand elements to build brand equity. *Strategic Brand Management*. 3rd ed. Delhi: Dorling Kindersley, 187-96.
- Kuvykaite, R., Dovaliene, A., & Navickiene, L. (2009). Impact of package elements on consumer's purchase decision. *Economics and Management*, (14), 441-447.
- Madden, T. J., Hewett, K., & Roth, M. S. (2000). Managing images in different cultures: A cross-national study of color meanings and preferences. *Journal of international marketing*, 8(4), 90-107.
- Matsatsinis, N. F., Grigoroudis, E., & Samaras, A. P. (2007). Comparing distributors' judgements to buyers' preferences: a consumer value analysis in the Greek olive oil market. *International Journal of Retail & Distribution Management*, 35(5), 342-362.
- Mueller, S., Lockshin, L. and Jordan, J.L. (2010). What you see may not be what you get: asking consumers what matters may not reflect what they choose. *Marketing Letters*, 21, 335-350.
- Nasab, M. B., Hassan, M. R., & Sahari, B. B. (2010). Metallic biomaterials of knee and hip-a review. *Trends Biomater. Artif. Organs*, 24(1), 69-82.
- Olawepo, G. T., & Ibojo, B. O. (2015). The Relationship between Packaging and Consumers Purchase Intention (A Case Study of Nestlé Nigeria Product). *International Business and Management*, 10(1), 72-81.
- Orth, U. R., & De Marchi, R. (2007). Understanding the relationships between functional, symbolic, and experiential brand beliefs, product experiential attributes, and product schema: advertising-trial interactions revisited. *Journal of Marketing Theory and Practice*, 15(3), 219-233.
- Panwar, J. S. (2004). Beyond consumer marketing: *sectoral marketing and emerging trends*. SAGE Publications India.
- Rath, N. (2024). Perceived Advantages and Challenges of Internet Marketing: A Study of Small Entrepreneurs in Punjab, India. *Journal of Policy Options*, 7(1), 11-17.
- Rokka, J., & Uusitalo, L. (2008). Preference for green packaging in consumer product choices—do consumer's care? *International Journal of Consumer Studies*, 32(5), 516-525.
- Roussel, Y., & Audi, M. (2024). Exploring the Nexus of Economic Expansion, Tourist Inflows, and Environmental Sustainability in Europe. *Journal of Energy and Environmental Policy Options*, 7(1), 28-36.
- Rukh, L., Abid, G., Nisar, A., & Ali, S. A. (2021). The impact of hotel quality dimensions and hotel image on the behavioral intentions: Mediating role of memories. *The journal of contemporary issues in business and government*, 27(2), 6482-6503.
- Rundh, B. (2005). The multi-faceted dimension of packaging: marketing logistic or marketing tool?. *British food journal*, 107(9), 670-684.
- Sajad Rezaei International Business School (IBS), *International Journal of Retail & Distribution Management* 42(5), 390-421.
- Sehrawet, M., & Kundu, S. C. (2007). Buying behaviour of rural and urban consumers in India: the impact of packaging. *International Journal of Consumer Studies*, 31(6), 630-638.
- Shah, S., Ahmad, A., & Ahmad, N. (2013). Role of packaging in consumer buying behavior. *International Review of Basic and Applied Sciences*, 1(2), 35-41.
- Shaharudin, M. R., Hassan, A. A., Mansor, S. W., Elias, S. J., Harun, E. H., & Aziz, N. A. (2010). The relationship between extrinsic attributes of product quality with brand loyalty on Malaysia national brand motorcycle/scooter. *Canadian Social Science*, 6(3), 165-175.
- Shaharudin, M. R., Mansor, S. W., Hassan, A. A., Omar, M. W., & Harun, E. H. (2013). The relationship between product quality and purchase intention: The case of Malaysias national motorcycle/scooter manufacturer. *African Journal of Business Management*, 5(20), 8163-8176.
- Silayoi, P., & Speece, M. (2004). Packaging and purchase decisions: An exploratory study on the impact of involvement level and time pressure. *British food journal*, 106(8), 607-628.
- Ullah, A., & Ali, A. (2024). Investigating Corruption, Income Inequality, and Environmental Degradation in Pakistan: A Time Series Analysis. *Journal of Energy and Environmental Policy Options*, 7(1), 9-18.
- Underwood, R. L., Klein, N. M., & Burke, R. R. (2001). Packaging communication: attentional effects of product imagery. *Journal of product & brand management*, 10(7), 403-422.
- Van Birgelen, M., Semeijn, J., & Keicher, M. (2009). Packaging and pro environmental consumption behavior: Investigating purchase and disposal decisions for beverages. *Environment and Behavior*, 41(1), 125-146.
- Vazquez, D., Bruce, M., & Studd, R. (2003). A case study exploring the packaging design management process within a UK food retailer. *British Food Journal*, 105(9), 602-617.
- Wang, E. S. T. (2017). Different Effects of Utilitarian and Hedonic Benefits of Retail Food Packaging on Perceived Product Quality and Purchase Intention. *Journal of food products marketing*, 23(3), 239-25.
- Wang, Y., & Heitmeyer, J. (2006). Consumer attitude toward US versus domestic apparel in Taiwan. *International Journal of Consumer Studies*, 30(1), 64-74.
- Wigley, S., & Rachel Chiang, C. L. (2009). Retail internationalization in practice: per una in the UK and Taiwan. *International Journal of Retail & Distribution Management*, 37(3), 250-270.
- Zekiri, J., & Hasani, V. V. (2015). The role and impact of the packaging effect on consumer buying behavior. *Eco forum Journal*, 4.