

AESTHETICS OF PACKAGING DESIGN AND CONSUMERS PURCHASE INTENTION OF READY-TO-EAT FOOD PRODUCTS AT THE POINT OF SALE

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ABSTRACT

Packaged food products are now available at grocery stores, which has increased consumer choice. Moreover, competition between packaged food products has increased as well.

The consumers' decision-making process is strongly influenced by product packaging. Therefore, the objective of the study is to measure the effect of the product's packaging (i.e., packaging materials, packaging graphics, typographic impression, and printed information) on purchase intention. Consumers of packed food in Muscat in the age group 20-48 were surveyed using a questionnaire adapted from previous studies. Random sampling was used in the collection of data from respondents. The sample size for the study was 209, representing 57% of male and 43% of female respondents. The hypotheses were empirically examined using regression analysis. The result indicates that product packaging, packaging graphics, and printed information have significant effects on consumer purchase intentions. Typographical printing was found to have an insignificant effect on consumer buying intentions. Printed information was also found to have the strongest influence on consumer purchasing intentions, followed by packaging graphics and packaging material. Future research could extend to other product categories and examine the aesthetics of typography under the influence of key demographic variables.

Keywords: Product packaging, packaging material, typography impression, packaging graphics, printed information, purchase intention.

[Asian Journal of Multidisciplinary Research & Review \(AJMRR\)](#)

ISSN 2582 8088

Volume 3 Issue 2 [March April 2022]

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INTRODUCTION

Attractive and successful packaging can prompt consumers to purchase a product, and branded packaging is designed to meet the functional and emotional needs of consumers [1], [2] The packaging of products exerts a strong influence on the buying intentions of consumers, at the point of sale. The packaging of goods has become an essential part of the sales process. Packaged food products are now available at supermarkets, which has expanded consumer choice. Moreover, competition between packaged food products has increased as well. Previous studies suggest that consumers view the self-service format of packaging as “selling on the shelf” [3]. Furthermore, packaging is now considered the primary vehicle of communication and branding [4] and there is a positive correlation between packaging and consumer buying decisions. According to [5], consumers have become more health-conscious and pay more attention to packaging labels. Additionally, consumer buying intentions are also influenced by packaging materials and packaging design [6]. Besides other features of packaging design, font size and printed information also impact on consumer’s purchase intention.

The abundance of scientific literature provides a unanimous response that packaging attributes affect consumer’s purchase intention. Most of the studies reported in the literature have focused on classification of package attributes and their impact on consumer’s purchase decision. Empirical research works on understanding whether packaging attributes create an impact on consumers’ intention in case of point of sales food items display is scant [7]. No packaging research is attributed to the knowledge of the researcher who evaluated the packaging attributes on the Omani market. Omani market is abandoned with imported food products with exclusive displays in supermarkets and food stores. The increase in point-of-purchase decisions is heightening the communication potential of food product packaging in Omani market. Therefore, this study seeks to empirically reveal important aesthetic elements of packaging and examine their relations with consumers purchasing decisions in the case of ready to eat food products. This study examines the effect of packaging material, typography impression, packaging graphics, and printed information on purchase intentions.

LITERATURE REVIEW AND HYPOTHESES

Consumer Purchase Intentions

Consumer buying intentions are the likelihood that a product will be purchased in the future. In other words, it also means that consumers may purchase the product after assessment; consumers with high buying intentions generally experience real buying behavior[8]. Several factors affect consumer buying intentions, such as brand identity, packaging, and peer experience. Consumer buying intentions help marketers predict future consumer behaviors and develop appropriate marketing strategies. Therefore, marketers aim to improve the buying intentions of consumers that directly affect actual consumer behavior[9]. Nearly every marketing communication strategy involves packaging due to its strong influence on consumer decision-making behavior. Companies are interested in packaging as a tool to boost sales and lower promotion costs [10]. The packaging for supermarket buyers at the point of sale with a perceived aesthetics has a strong influence on the intention of consumers to purchase [11]. In formulating strategies to influence consumers regarding buying decision behavior, the attractiveness of packaging design, labelling, and the relationship of innovative packaging and useful information are very important factors [12].

Packaging Material And Consumer Purchase Intentions

The packaging of products is used to protect a product from the external environment and for promotional purposes [13]. Packaging and its sub-factors positively affect consumer purchasing intentions [14]. [15] suggest that the consumer decision-making process lacks objectivity, coherence, and rationality. The visual attractiveness of product packaging is also a promotional marketing and attractive packaging [16] affects purchase intention. When consumers purchase high-involvement products, they place greater importance on the information written on packaging labels. In low-participation products, consumer buying intentions depend on the design of the package[17]. Furthermore, there is a positive relationship between packaging design and consumer intent, which is very relevant for food products [18], [19]. Consumers tend to buy goods packed with high quality materials. Packaging materials also have a strong influence on consumer purchasing behavior and consumers tend to judge a product's packaging material through its visual attractiveness and packaging design. Accordingly, we postulate that:

H1: Packaging material has a positive effect on consumer purchase intentions.

Typography impression and consumer purchase intentions

A word written in a typography bears two kinds of significance: denotes and connotations. The denoted meanings correspond to the definition of the word; the connotation meanings go beyond this literal meaning and include semantic associations of physical features of the typeface[20]. A key aspect of the packaging is the typeface style. It is important to use appropriate font styles with appropriate provisions to make the product more conspicuous[21]. Product text is critical for effective communication. This communication will not be effective unless the appropriate content and font styles are used. [22]found that font styles affect consumer purchasing intentions, followed by the color and shape of product packaging. [23]argue that the font style attracts consumers and helps them decipher the expected message. Many companies display strategically significant font styles on their products[24]. There is a direct association between font style and consumer buying intentions and that font style boosts behavioral outcomes because consumers tend to react faster when the font style is aligned with the message, a proper font style improves product visibility[25]. For example, casual Bradley Hand typography is viewed as friendly. Sans Serif Helvetica is perceived as technical rather than individual, and Times New Roman is perceived as professional and formal. The Garamond font style tends to be used for luxury products, whereas the century bold font style is used for economy products[27]. Similarly, handwritten typefaces create perceptions of human presence, which lead to more favorable product evaluations and enhance the emotional attachment between the consumer and the product[28]. Therefore, we hypothesize that:

H2: Typography impression has a positive impact on consumer purchase intentions.

Packaging graphics and consumer purchase intentions

The graphics on the packaging make it unique, preserve its individuality, help focus on the brand and stand out on the shelves. Graphics add value to a brand's physical appearance and improve its aesthetic quality. Images on a product's packaging may increase a consumer's curiosity and interest in a specific product[29]. An important role of packaging graphics is to bring consumer attention; graphics help consumers find the brand of their choice in retail stores and if they have no strong brand preference [10]. Previous studies[30] [31]indicate a significant

relationship between the image and colors of a product and the purchasing behavior of consumers.

Graphic design is an essential aspect of packaging design. The packaging design should be in accordance with the target audience [32] because it helps in enhancing the visibility of the product in shopping centers. It is argued that unique, innovative, and distinctive packaging contributes to product differentiation, brand identity and consumer purchasing intent. Design relates to cultural values and emotions as well. As a result, visually appealing packaging color plays a critical role in driving consumer buying intentions. Therefore, we hypothesize that:

H3: Packaging graphics has a positive impact on consumer purchase intentions.

Printed information and consumer purchase intentions

The printed information or product label provides product information and is intended to motivate and appeal to consumers. In purchasing high involvement products consumers pay more attention to information [33]. Consumers who read the printed information pay more attention to nutritional information, followed by expiration date, price and brand name. Traditionally, external information is used as a source of information on products and services. There are multiple sources of information like vendors, in-store displays, product packaging and, increasingly, the Internet. A relatively large amount of information in offline shopping situations works as a cloud signal that improves purchase intentions and choice behaviors. Product disclosures increase consumer confidence and help consumers preserve and access in-store information with positive feelings about purchase intention [34]. Labelling helps consumers obtain information about the product class, product ingredients and product instructions. Marketing professionals can use packaging information to create brand identity and support marketing communication strategies. Labelling is the most visible part of product and marketing mix [35]. Therefore, we hypothesize:

H4: Printed information positively impact on consumer purchase intentions.

Theoretical background and conceptual framework

Martin Fishbein's model of the theory of reasoned action (ToRA) explains the relationship between attitudes and behaviors in human action. The theory suggests that behavior of a person is determined by their intention to perform the behavior. Therefore, intention, in turn, is a

function of their attitude toward the behavior and subjective norms[36]. ToRA as a cognitive theory offers a conceptual framework for understanding human behavior in specific contexts. Based on the above discussion, a conceptual framework has been developed (Figure 1).

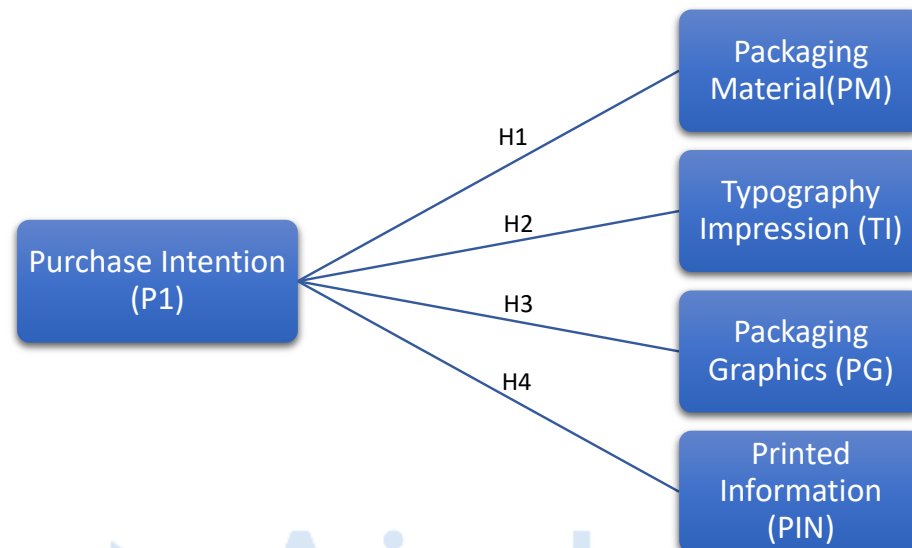


Figure 1: Conceptual Framework

METHODOLOGY

In this study, researchers used a descriptive research design using quantitative data collected from a field investigation. The research deployed random sampling at three levels: 140 respondents were intercepted at a few retail outlets while shopping and were provided with the printed barcode of an online questionnaire. Moreover, 120 questionnaires were distributed in the colleges of Muscat through the circle of friends and 200 questionnaires were sent to friends via social media. Therefore, a total of 460 surveys were distributed and only 209 useable surveys with a response rate of about 45% were received. The sample comprised of 119 male and 90 female participants. We used 23 elements to measure of the constructs adapted from [14]. All components were measured using a 7-point Likert scale with anchors on 1 = strongly disagreeable and 7 = strongly agreed, respectively. Preliminary statistical tests of reliability, normality and validity were conducted to ensure the prior conditions of the data before applying multiple regression.

Reliability Analysis

The internal consistency of the constructs (table 1) used in the questionnaire was assessed through Cronbach's Alpha.

Table 1: Reliability Statistics

Constructs	Cronbach's Alpha	Items
Packaging Material	0.701	4
Typography Impression	0.712	4
Packaging Graphics	0.767	5
Printed Information	0.726	4
Consumer Purchase Intentions	0.797	5

Table 1 shows that Cronbach's alpha values varied between 0.701 and 0.797. All alpha values at Cronbach are above 0.70. Hence, the constructs satisfy the requirements of internal consistency [37].

Descriptive Statistics

Table 2: Descriptive Statistics

	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Packaging Material (PM)	3.230	0.750	0.630	0.270	0.060
Typography Impression (TI)	3.120	0.740	0.620	0.250	0.021
Packaging Graphics (PG)	3.090	0.770	0.680	0.290	0.170
Printed Information (PIN)	3.050	0.640	0.450	0.380	0.140

Purchase Intention (PI)	3.900	0.730	0.600	0.930	1.070
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Table 2 shows that the skewness values ranged between 0.250 for CI (M= 3.900, SD= 0.730) to 0.930, the lowest for TI (M= 3.120, SD= 0.740). Moreover, the kurtosis values ranged between 1.070 for PI (M= 3.900, SD= 0.730) to the lowest 0.060 for PM (M= 3.230, SD= 0.750). Since the asymmetry and kurtosis values were 3.5, it can be inferred that the constructs meet the requirements of univariate normality [38]

Discriminant Validity

A discriminant analysis was performed to evaluate the unique and distinctive character of the constructions. This is shown in Table 3.

Table 3:Discriminant Validity

Constructs	1	2	3	4	5
Variance Extracted	0.518	0.578	0.624	0.672	0.689
Packaging Material (PM)	0.72				
Typography Impression (TI)	0.31	0.76			
Packaging Graphics (PG)	0.27	0.29	0.79		
Printed Information (PIN)	0.09	0.09	0.11	0.82	
Purchase Intention (PI)	0.17	0.13	0.23	0.14	0.83

As shown in table 3, square root of explained variance (diagonal values) are higher than the remaining correlation pairs of each construct. Therefore, constructs are distinct and unique [38].

HYPOTHESES TESTING

Multiple regression analysis (table 4) was executed to measure the effect of aesthetic features of product packaging (i.e., packaging material, typography impression, packaging graphics, printed information, purchase intention) on the dependent variable consumer purchase intention. The results indicated that the Packaging Material ($\beta = 0.216$, $p < 0.05$), Packaging Graphics ($\beta = 0.219$, $p < 0.05$) and Printed Information ($\beta = 0.273$, $p < 0.05$) have a significant impact on Purchase Intention. Typography Impression ($\beta = 0.032$, $p > 0.05$) has insignificant impact on consumer Purchase Intention.

Table 4: Path coefficients

Hypothesized Relationship	Unstandardized Coefficients		Standardized Coefficients	T	Decision
	B	Std. Error	β		
PM > PI	0.213	0.077	0.216	2.804*	Supported
TI > PI	0.032	0.068	0.032	0.459	Not Supported
PG > PI	0.208	0.060	0.219	3.523*	Supported
PIN > PI	0.275	0.079	0.237	2.960*	Supported

Notes:

Intercept (constant) 2.231

* Significant at 5% level

Dependent variable (PI: Purchase Intention)

Predictors (PM: Packaging Material, TI: Typography Impression, PG: Packaging Graphics, PIN: Printed Information)

$R^2 = 0.436$; Adjusted $R^2 = 0.421$, ANOVA: $F = 14.911$, $p < 0.05$.

DISCUSSION

The study has examined the impact of product packaging on consumer purchase intentions. The results from multiple regression analysis suggest that packaging material, packaging graphics, and printed information have a positive and statistically significant effect on consumer purchase intention, holding other factors constant. On the contrary, typography impression remained statistically insignificant. Overall, the results of the study support the view that packaging does not limit to the wrapping of a product. Somewhat, all the elements of packaging play a critical role in promoting consumer purchase intentions.

The results of the research are compelling that packages should be used as a communication strategy at the point of purchase, therefore, appropriate care need to be given to the packaging attributes which result in increased sales and revenue as they influence consumers buying decisions. Packaging material and printed information have a greater influence and typeface and fonts are not influential as expected. Therefore, this is important for companies to prioritize between packaging attributes because effects of packaging attributes are not similar on consumer purchasing intent.

The study contributes to market related literature in context of Oman. Precisely, study is first of its kind regarding packaging and consumers' purchase intention related to one of a potential market segment. The outcomes of the research draw serious insights into marketing strategies related to food items in Oman. The results emphasize on food marketers to pay a special attention to aesthetics of packaging because this will increase the influence on consumer purchasing decision-making. Therefore, companies should consider packaging attributes as a tool of marketing strategy.

Future research may address the limitations of this study. First, this research is focuses only on one type of product category. Future studies may expand the scope of research to varied segments of products. Secondly, aesthetics of typography (i.e., colors and fonts) should be investigated separately under the influence of key demographic variables (i.e., gender, age, education level).

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