

Product Packaging and Consumer Purchase Intentions

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Abstract

Packaged food products are now available in supermarkets which has increased consumer choice. In addition, competition between packaged food products has also increased. The consumer's decision making process is strongly influenced by product packaging. Thus, the aim of the study is to measure the effect of product packaging (i.e. packaging color, packaging material, font style, packaging design and printed information) on consumer purchase intentions. Consumers of packaged foods in Karachi belonging to the age group of 18-35 years were surveyed through a questionnaire adapted from the earlier studies. The sample size for the study was 278 comprising a response rate of 95%. Preliminary statistical investigation consisted of reliability, validity and normality analyses. The developed hypotheses were empirically examined through regression analysis. The results suggest that all the hypotheses were accepted. The results also indicate that product packaging has a significant effect on consumer purchase intentions. It was also found that packaging material has the strongest influence on consumer purchase intentions followed by packaging color, font style, packaging design and printed information. Future studies may investigate how consumer purchase intentions are influenced by other elements of packaging in the context of Pakistan.

Keywords: *Product packaging, packaging color, font style, packaging design, printed information, consumer buying behavior.*

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Introduction

Product packaging has a strong influence on consumer purchase intentions especially at the point of sale. In fact, product packaging has become an essential part of the selling process (Rettie & Brewer, 2000). Packaged food products are now available in supermarkets which has increased consumer choice. In addition, competition between packaged food products has also increased. Prior studies suggest that consumers consider the self-service-format of packaging as a “salesman on the shelf” (Rettie & Brewer, 2000). Moreover, packaging is now considered a primary medium for communication and branding (Rettie & Brewer, 2000). Quazi (2008) documents a positive correlation between packaging and consumers purchase decisions. It is argued that the packaging of food products must stimulate a favorable response (Rundh, 2007). Coulson (2000) suggests that consumers have now become more health conscious and give more attention to packaging labels. On the contrary, consumer purchase intentions are also influenced by packaging material and packaging design (Deliya & Parmar, 2012). Moreover, a positive association between font size and packaging design was also found (Quazi, 2008). Similarly, Rundh (2007) found a positive association between packaging color and printed information. Thus, this study examines the effect of packaging material, packaging color, font style, packaging design and printed information on consumer purchase intentions.

Literature Review

Consumer Purchase Intentions

Consumer purchasing process depends on various factors including price, packaging, promotion and previous experience (Shafiq, Raza & Zia-ur-Rehman, 2011). When consumers purchase a product, they rely on internal search and external search. Internal search is based on consumers past product experience. On the contrary, external search is based on the experience of other consumers who have shared their views on social media (Keller, 2001). Purchase intentions also depend on product categories, demographics and the moods of consumers (Kamaruddin & Kamarulzaman, 2009). Consumer purchase intentions is the likelihood to buy a product in future. In other words, it also means that consumers are likely to purchase the product after evaluation. Consumers with high purchase intentions generally leads to actual purchase behavior (Keller, 2001). There are several factors which affect consumer purchase intentions. For example, brand image, packaging and experience of peers. Consumer purchase intentions helps marketers to forecast future consumer behavior and develop appropriate marketing strategies. Therefore, marketers aim to enhance consumer purchase intentions which directly influence consumers actual behavior (Morwitz, 2014).

Product Packaging

Product packaging is used for protecting a product from the external environment and promotion purposes (Raheem, Ahmad, Vishnu & Imamuddin, 2014). Packaging and its sub-factors have a positive effect on consumer purchase intentions (Ahmad, Billoo & Lakhan, 2012). Raheem, Ahmad, Vishnu & Imamuddin (2014) suggest that the process of consumer decisions lack objectivity, consistency and rationality. Therefore, they often make a judgment of quality based on packaging. Prior studies have found that packaging is an important tool for promoting products and stimulating purchase intentions (Rundh, 2007). The design, quality and color of packaging also have a strong influence on consumer buying behavior (Raheem, Ahmed, Vishnu & Imamuddin, 2014). It has also been suggested that packaging is an ultimate selling proposition which helps consumers to differentiate products (Underwood, 2003; Silayoi, & Speece, 2007; Bagozzi, Yi & Baumgartner, 1990). Mueller & Lockshin (2008) found a strong association between product packaging, consumer purchase intentions and brand experience. The visual appeal of product packaging is also a medium for marketing promotions (Silayoi & Speece, 2007). When consumers purchase high involvement products they give more importance to written information on packaging labels. In low involvement products, consumer purchase intentions depend on the design of packaging (Sehrawet & Kundu, 2007).

Packaging Color and Consumer Purchase Intentions

Packaging color helps consumers visualize and differentiate competitive brands (Aydin & Özer, 2005). When consumers visit a supermarket they are exposed to numerous products with different packaging colors. However, consumers tend to purchase the products whose packaging colors capture their attention. Past studies have found that different packaging colors have different meanings (Aslam, 2006). The black color reflects authority and mystery, whereas, the green color reflects ease. In addition, the red color shows passion and strong traits while the green color suggests affordability and casualness. The brown color is a symbol of masculinity and the white color symbolizes purity, refinement and formality (Aslam, 2006). Consumers often make a judgment on the quality and price of a product based on its packaging color (Becker, Van-Rompay, Schifferstein & Galetzka, 2011). Additionally, consumers tend to relate colors with their preference and belief. For example Babin, Hardesty & Suter (2003) found that consumers prefer to see the blue color in clothing shops. Kauppinen-Räsänen & Luomala (2010) examined the effects of different colors on medicine products. The study found that different packaging colors are associated with consumer perception about quality and price of medicines.

Packaging color has a strong influence on consumer purchase intentions (Grossman & Winsenblit, 1999; Agariya et al., 2012). Packaging color enhances the visual appeal of the product and helps consumers to differentiate a brand from another. In many cultures,

packaging colors are associated with different cultural values. Packaging colors that have visual appeal in some cultures may not be appealing in others. Thus, firms should tailor packaging colors in line with cultural values (Madden, Hewett & Roth, 2000). Prior studies have found that consumers tend to select those products whose packaging colors have greater appeal to their cultural values (Grossman & Winsenblit, 1999; Agariya et al., 2012). Consumers also select products which they are familiar with or have triggered their interest. Hence, visually appealing packaging color plays a vital role in stimulating consumer purchase intentions (Becker et al., 2011). Therefore, we hypothesize that:

H1: Packaging color has a positive impact on consumer purchase intentions.

Packaging Material and Consumer Purchase Intentions

Packaging material prevents products from damage or loss. Generally, most products are available in cardboard, glass and plastic. Packaging material is the first characteristic of a product that comes in direct contact with the consumer. It also reflects the quality and image of a product. Past studies have found that when consumers see low quality packaging material they assume that the quality of the product will be low as well (Underwood, Klien & Burke, 2001). Therefore, consumers tend to purchase products packaged with high quality materials. Packaging material also has a strong effect on consumer buying behavior (Holt, Quelch & Taylor, 2004). Silayoi & Speece (2004) found that consumers tend to judge the packaging material of a product through its visual appeal and packaging design. Further, most consumers are not able to judge the quality of the packaging material, therefore, they make an assessment based on the packaging design. In the past, packaging material was only used for visual appeal. However, now firms are using environment friendly packaging materials to stimulate purchase intentions (Lau & Wong, 2000; Gross & Kalra, 2002).

Past studies have found that the packaging material has a direct relationship with consumer purchase intentions and an indirect relationship with purchase intentions through perceived quality (Holt, Quelch & Taylor, 2004). It has also been found that consumers prefer glass packaging for some products and plastic/cardboard material for others. For instance, Holt, Quelch & Taylor (2004) found that consumers prefer glass packaging for milk and juices as compared to plastic or cardboard containers. Therefore, we hypothesize that:

H2: Packaging material has a positive effect on consumer purchase intentions.

Font Style and Consumer Purchase Intentions

A key element of packaging is the font style. It is important that suitable font styles with appropriate arrangement are used to make the product more visible (Mutsikiwa &

Marumbwa, 2013). The text on the product is important for effective communication. This communication will only be effective if the right content with the right font styles are used (Mutsikiwa & Marumbwa, 2013). Nayyar (2012) found that font styles have the strongest effect on consumer purchase intentions followed by color and shape of product packaging. It has been argued that the font style attracts consumers and helps them to decode the intended message (Akpoymare, Adeosun & Ganiyu, 2012). Therefore, many companies display strategically important font styles on their products (Deliya & Parmar, 2012).

It has been found that the Garamond font style tends to be used for luxury products, whereas the century bold font style is used for economy products (Lupton, 2004). In addition, the italic font style is used in health related products (Smith & Taylor, 2004). Prior research suggests that the font style stimulates behavioral outcomes (Lockshin & Corsi, 2012). Consumers tend to respond more quickly when the font style is aligned with the message (Lewis & Walker, 1989; Silayoi & Speece, 2007). Thus, an appropriate font style enhances the visibility of the product. Lockshin & Corsi (2012) found that there is a direct association between font style and consumer purchase intentions. Therefore, we hypothesize that:

H3: Font style has a positive effect on consumer purchase intentions.

Packaging Design and Consumer Purchase Intentions

Packaging design includes the layout, fonts and colors used on a product. All these aspects of packaging design create a brand image and stimulates consumer purchase intentions (Grossman & Wisenblit, 1999). Consumers while purchasing low involvement products do not spend time in evaluating the attributes of products. Therefore, the package design is more important in low involvement products as compared to high involvement products (Hausman, 2000). As consumers draw inferences about a product on the basis of packaging design, therefore, it must stand out in a display (Grossman & Wisenblit, 1999). Due to time constraints, many consumers purchase products impulsively and their purchasing behavior is influenced by the packaging design (Herrington & Capella, 1995).

Packaging design has a strong influence on consumer purchase intentions (Javed & Javed, 2015). Prior studies have found that different demographic groups prefer different packaging designs (Löfgren & Witell, 2005). In general, kids tend to prefer flamboyant packaging designs whereas adults prefer sober packaging designs. Therefore, packaging design should be in accordance with the target audience (Raheem, Vishnu & Ahmed, 2014). It is argued that a unique, innovative and distinguishable packaging design helps in creating product differentiation, brand identity and stimulates consumer purchase intentions

(Underwood, 2003). Packaging design also helps in enhancing the visibility of the product in shopping centers (Javed & Javed, 2015). Therefore, we hypothesize that:

H4: Packaging design has a positive effect on consumer purchase intentions.

Printed Information and Consumer Purchase Intentions

Printed information (or product labels) provide information about products. Additionally, printed information is designed to attract consumers and motivate them to buy a product (Silayoi & Speece, 2004; Butkeviciene, Stravinskiene & Rutelione, 2008). It has been found that consumers pay more attention to printed information when purchasing high involvement products (Kupiec & Revell, 2001). In contrast, consumers tend to pay more attention to visual appeal while purchasing low involvement products. Consumers also read printed information of a product when they purchase health related products (Coulson, 2000). Kupiec & Revell (2011) suggests that it will be more convenient for consumers to compare the ingredients if the printed information of health related products are in the same format.

On the contrary, some studies have found that there is no association between printed information and purchase intentions especially in developing countries (Silayoi & Speece, 2004). In developing countries, consumers generally pay attention to the expiry date and ingredients of products (Bender & Derby, 1992; Ollberding, Wolf & Contento, 2011). Several studies have found that printed information on products tends to stimulate consumer purchase intentions (Ollberding, Wolf & Contento, 2011). Eldesouky & Mesias (2014) found that consumers while reading printed information give more attention to nutritional information, followed by expiry date, price and brand name.

Several researchers have examined how various factors can moderate or mediate the relationship between printed information and consumer purchase intentions. For example, Bressolles (2006) found that perceived quality and perceived uniqueness moderate the relationship between printed information and consumer purchase intentions. On the contrary, Gatfaoui & Lavorata (2001) found that perceived risk and socio demographic factors mediate the relationship between printed information and consumer purchase intentions. Therefore, we can hypothesize that:

H5: Printed information has a positive effect on consumer purchase intentions.

Conceptual Framework

Based on the above discussion, a conceptual framework has been developed. The conceptual framework is presented in Figure 1.

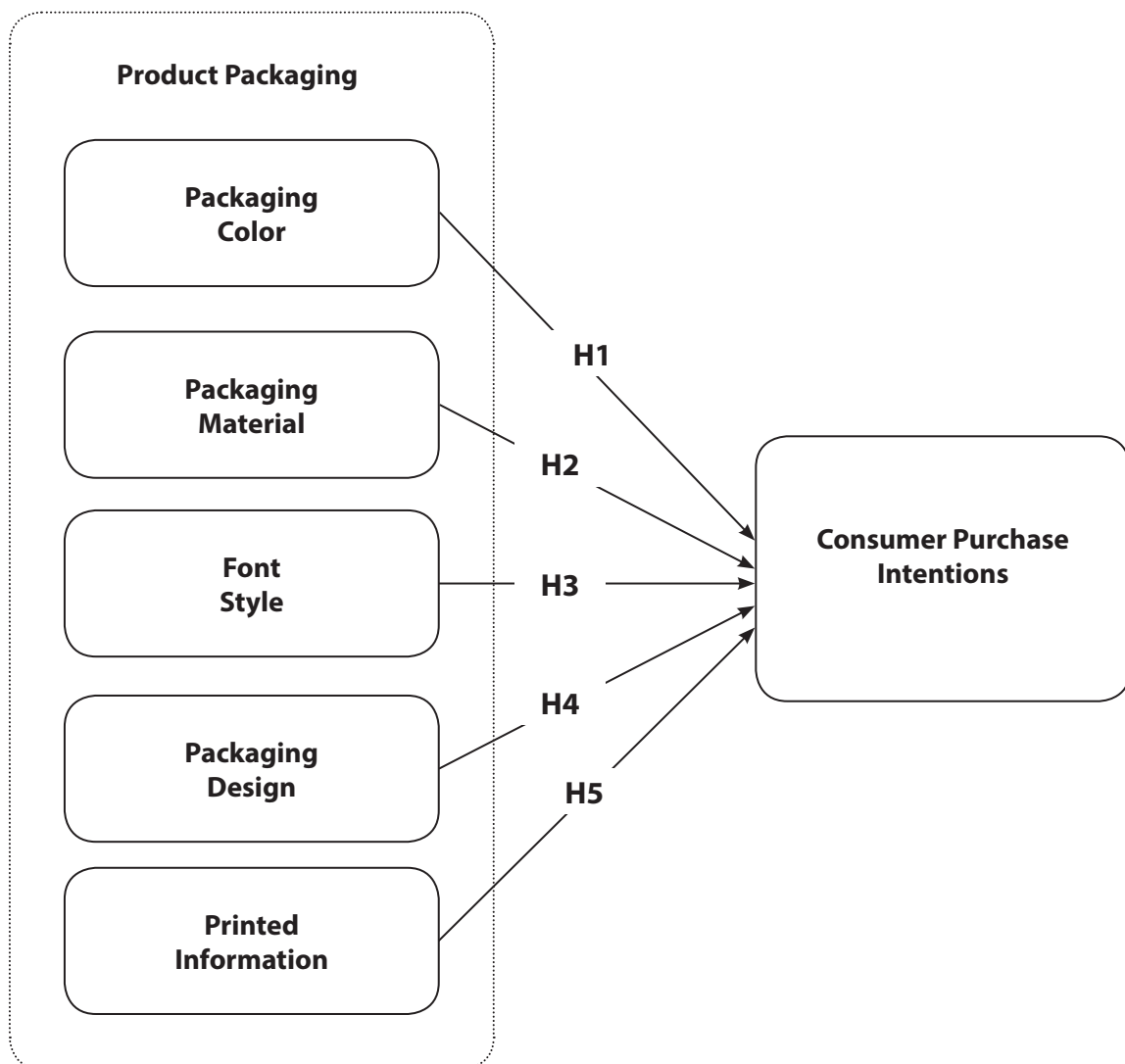


Figure 1: Conceptual Framework

Methodology

Sample

The study was restricted to selected business school students of Karachi within the age group of 18-35 years. This segment was selected as past research indicates that the 18-35 year age group tends to consume a large quantity of packaged food. The sample size for the study was 278 with a response rate of approximately 95%. Of the total 278 respondents, 55% were males and the remaining 45% were females. 94% of the respondents belonged to the 18-24 years age group and 6% belonged to the 25-35 years age group. 65% of the respondents were doing BBA and the rest were doing MBA.

Scales and Measures

The scales and measures of the constructs were adapted from Ahmad, Billoo & Lakhan (2012) consisting of 23 items. The questionnaire includes 4 items for packaging color, 3 items for packaging design, 3 items for font style, 5 items for packaging material, 3 items for printed information and 5 items for consumer purchase intentions. The constructs and items used in the questionnaire are attached in Annexure 1. All the items were based on the five point Likert scale. The Likert scale ranges from one to five where one represents strongly disagree and five represents strongly agree.

Statistical Analysis

Prior to multiple regression analysis, preliminary statistical tests for reliability, normality and validity were performed. The results from preliminary tests are reported and discussed in the subsequent sections.

Results

Reliability Analysis

The internal consistency of the constructs used in the questionnaire was assessed through Cronbach's Alpha. The results are presented in Table 1.

Table 1: Reliability Analysis

Constructs	Cronbach's Alpha	Items	Mean	Std. Deviation
Packaging Color	0.703	4	3.35	0.87
Packaging Design	0.672	3	3.24	0.86
Font Style	0.667	3	3.21	0.89
Packaging Material	0.734	5	3.17	0.76
Printed Information	0.776	3	2.97	1.07
Consumer Purchase Intentions	0.897	5	4.02	0.85

Table 1 shows that the Cronbach's Alpha values ranged from 0.667 to 0.897. It is the highest for consumer purchase intentions ($\alpha=0.897$, Mean=4.02, SD=0.85) and the lowest for font style ($\alpha=0.667$, Mean=3.21, SD=0.89). As all the Cronbach's alpha values are greater than 0.60, therefore, the constructs satisfy the requirements of internal consistency (Hair et al., 2013).

Descriptive Statistics

The descriptive statistics of the variables are presented in Table 2.

Table 2: Descriptive Analysis

	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Packaging Color	3.35	0.87	0.75	-0.28	-0.07
Packaging Design	3.24	0.86	0.74	-0.26	0.01
Font Style	3.21	0.89	0.80	-0.30	-0.18
Packaging Material	3.17	0.76	0.57	-0.39	0.15
Printed Information	2.97	1.07	1.15	-0.01	-0.75
Consumer Purchase Intentions	4.02	0.85	0.72	-0.94	1.08

Table 2 shows that the skewness values ranged between -0.94 to -0.01. The highest skewness in absolute value is for consumer purchase intentions (Mean= 4.02, SD= 0.85) and lowest for printed information (Mean= 2.97, SD= 1.07). Moreover, the kurtosis values ranged between 0.01 and 1.08. It is the highest for consumer purchase intentions (Mean= 4.02, SD= 0.85) and the lowest for packaging design (Mean= 3.24, SD= 0.86). Since both skewness and kurtosis values ranged within ± 3.5 , therefore it can be inferred that the constructs fulfill the requirements of univariate normality (Hair, Black, Babin & Anderson, 2013).

Discriminant Validity

Discriminant analysis was carried out to assess the uniqueness and distinctiveness of the constructs. The results are presented in Table 3.

Table 3: Discriminant Validity

	1	3	4	5	6	7
Packaging Color	0.73					
Packaging Material	0.31	0.67				
Packaging Design	0.26	0.30	0.78			
Printed Information	0.07	0.07	0.11	0.83		
Font Style	0.16	0.12	0.22	0.15	0.78	
Consumer Purchase Intentions	0.17	0.05	0.06	0.01	0.11	0.84

The results show that the diagonal values (square root of variance explained) are greater than the rest of the values (square of each pair of correlation). This suggests that all the constructs are distinct and unique (Hair et al., 2013; Thomas & Nelson, 2015).

Product Packaging and Consumer Purchase Intentions

Multiple regression analysis was used to measure the effect of product packaging (i.e. packaging color, packaging design, font style, packaging material and printed information) on the dependent variable consumer purchase intentions. The multiple regression results are presented in Table 4.

Table 4: Multiple Regression Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	β		
(Constant)	2.230	0.231		9.638	0.000
Packaging Color	0.212	0.076	0.215	2.803	0.005
Packaging Design	-0.031	0.067	-0.031	-0.458	0.648
Font Style	0.207	0.059	0.218	3.522	0.000
Packaging Material	-0.074	0.078	-0.066	-0.959	0.338
Printed Information	-0.053	0.045	-0.067	-1.171	0.243

DV: Consumer Purchase Intentions, $R^2=0.236$; Adjusted $R^2=0.221$, $F=14.911$, $p<0.05$.

The results suggest that the product packaging (i.e. packaging color, packaging design, font style, packaging material and printed information) explains 22.1% of the variance in the dependent variable ($F=14.911$, $p<0.05$). It was also found that packaging color ($\beta = .215$, $p<.05$) and font style ($\beta = .218$, $p<.05$) has a significant impact on consumer purchase intentions. Moreover, packaging design ($\beta = -.031$, $p>.05$), packaging material ($\beta = -0.066$, $p>.05$), and printed information ($\beta = -0.067$, $p>.05$) are insignificant at the 5% level.

Packaging Color and Consumer Purchase Intentions

The first hypothesis states that packaging color has a positive impact on consumer purchase intentions. Table 5 provides the simple regression results from regressing packaging color on consumer purchase intentions.

Table 5: Simple Regression Results

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	β		
Constant	2.664	.181		14.735	.000
Packaging Color	.405	.052	0.412	7.749	.000

DV: Consumer Purchase Intentions, $R^2=0.170$; Adjusted $R^2=0.167$, $F=60.040$, $p<0.05$.

The regression results suggest that the hypothesis examining the impact of packaging color on consumer purchase intentions was accepted. Packaging color explains 16.7% of the variance in consumer purchase intentions (Adjusted $R^2=.167$, $F= 60.40$, $p< 0.05$). The variable packaging color ($\beta = .412$, $p<.05$) has a significant impact on consumer purchase intentions.

Packaging Material and Consumer Purchase Intentions

The second hypothesis states that packaging material has a positive impact on consumer purchase intentions. Table 6 provides the simple regression results from regressing packaging material on consumer purchase intentions.

Table 6: Simple Regression Results

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	β		
Constant	3.159	.207		15.245	.000
Pack. Material	.272	.064	.242	4.276	.000

DV: Consumer Purchase Intentions, $R^2=0.059$; Adjusted $R^2=0.055$, $F=18.23$, $p<0.05$.

The results in Table 6 suggest that the hypothesis examining the impact of packaging material on consumer purchase intentions was accepted. Packaging material explains 5.55% of the variance in consumer purchase intentions (Adjusted $R^2=.055$, $F = 18.23$, $p<0.05$). The variable packaging material ($\beta = .242$, $p<.05$) has a significant impact on consumer purchase intentions.

Font Style and Consumer Purchase Intentions

The third hypothesis states that font style has a positive impact on consumer purchase intentions. Table 7 provides the simple regression results from regressing font style on consumer purchase intentions.

Table 7: Simple Regression Results

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	β		
Constant	2.998	.174		17.218	.000
Font Style	.319	.052	.335	6.100	.000

DV: Consumer Purchase Intentions, $R^2=0.112$; Adjusted $R^2=0.109$, $F=37.210$, $p<0.05$.

The results in Table 7 suggests that the hypothesis examining the impact of font style on consumer purchase intentions was accepted. Font style explains 10.9% of the variance in consumer purchase intentions (Adjusted $R^2=.109$, $F = 37.210$, $p<0.05$). The variable font style ($\beta = .335$, $p<.05$) has a significant impact on consumer purchase intentions.

Packaging Design and Consumer Purchase Intentions

The fourth hypothesis states that packaging design has a positive impact on consumer purchase intentions. Table 8 provides the simple regression results from regressing

packaging design on consumer purchase intentions.

Table 8: Simple Regression Results

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	β		
Constant	3.246	.187		17.338	.000
Packaging Design	.239	.056	.242	4.285	.000

DV: Consumer Purchase Intentions, $R^2=0.059$; Adjusted $R^2=0.056$, $F=18.362$, $p<0.05$.

The results suggest that the hypothesis examining the impact of packaging design on consumer purchase intentions was accepted. Packaging design explains 5.6% of the variance in consumer purchase intentions (Adjusted $R^2=.050$, $F= 18.362$, $p< 0.05$). The variable packaging design ($\beta = .242$, $p<.05$) has a significant impact on consumer purchase intentions.

Printed Information and Consumer Purchase Intentions

The fifth hypothesis states that printed information has a positive impact on consumer purchase intentions. Table 9 provides the simple regression results from regressing printed information on consumer purchase intentions.

Table 9: Simple Regression Results

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	β	Std. Error	β		
Constant	3.748	.145		25.850	.000
Pr. Information	.092	.046	.116	2.005	.046

DV: Consumers Purchase Intention, $R^2=0.013$, Adjusted $R^2=0.010$, $F=4.020$, $p<0.05$.

The results suggest that the hypothesis examining the impact of printed information on consumer purchase intentions was accepted. Printed information explains 1% of the variance in consumer purchase intentions (Adjusted $R^2=.010$, $F=4.020$, $p<0.05$). The variable printed information ($\beta = 0.116$, $p<.05$) has a significant impact on consumer purchase intentions.

Conclusion

The study has examined the impact of product packaging on consumer purchase intentions. The results from multiple regression analysis suggest that font style and packaging color have a positive and statistically significant effect on consumer purchase intentions, holding other factors constant. On the contrary, packaging design, printed information and packaging material remain statistically insignificant. Further, the simple regression results imply that each element of packaging has a significant influence on consumer purchase intentions. Overall, the results of the study support the view that packaging is not limited to the wrapping of a product. Rather, all the elements of packaging play a critical role in promoting consumer purchase intentions. Therefore, marketers should focus on the font style and packaging color in order to stimulate consumer purchase intentions. The study has some limitations. First, the respondents of the study belong to the business institutes of Karachi. Second, only four brands of products have been examined. Future research may investigate how consumer purchase intentions are influenced by other elements of packaging in the context of Pakistan.

Annexure-1

Constructs & Items in the Questionnaire

Packaging Color

1. I like the color of packaging of this product / brand.
2. Color of packaging of this product/brand matters to me in purchasing it.
3. I can recall this brand when the similar color is viewed.
4. I can associate color of this product/brand with brand image.

Packaging Design

1. Wrapper design of this product/brand is important in packaging.
2. Design of this product/brand's wrapper inspires me to purchase.
3. Wrapper design builds a perception in my mind about this product.

Packaging Material

1. I prefer this brand due to its high quality packaging material.
2. The packaging of this brand /product attracts me.
3. The quality of packaging material of this product/brand means the product is better.
4. The quality of packaging material of this product /brand does not matter to me.
5. I think it's a renowned brand due to its packaging.

Printed Information

1. I read printed information on the package of this product.
2. I evaluate this product/brand according to the printed information while purchasing.
3. I feel product information on the packet of this product/brand is important.

Font Styles

1. Font styles used on the packet of this product/brand are attractive.
2. I like the creative font style on packets of this product/brand.
3. Font size used helps me remember this product/ brand.

Consumer Purchase Intentions

1. It is very likely that I will buy this product/ brand.
2. I would purchase this product/brand next time.
3. I think about this product/brand of chocolate as a choice when buying chocolate.
4. I think of buying this product /brand of chocolate.
5. I will recommend my friends and relatives to buy this product/brand of chocolate.

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