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## THE STUDY OF MARKETING ANALYSIS AND SALES DEVELOPMENT OF POWDERED MILK

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### ABSTRACT

The consumers of powdered milk in Pakistan prefer imported powdered milk brands as compared to produced locally. The study attempts to determine the factors affecting consumers' intention to purchase powdered milk and explicate consumer buying behavior. The study includes elements of marketing and sales such as consumers' attitude toward taste of powdered milk, perception of safety and health, packaging, price, advertisement, product availability and display to understand their impact of dependent variable, that is, consumers' intention to purchase powdered milk. The data were collected through a self-administrated questionnaire on convenience based sampling technique from a sample of 288 respondents and multiple regression analysis was used to conclude findings and results. The results show that attitude toward taste, perception of safety and health and advertising have a significant impact on consumers' intention to purchase powdered milk. The study describes the point the better tasting, safe and health promising, well priced and well-advertised powdered milk can draw the attention of its target customers and can even compete the foreign brands. The research tends to assist powdered milk producers to understand consumers buying behavior and will help them improve their marketing inventiveness to serve consumer needs in a better way and promote locally produced brands.

**Key words:** powdered milk, intention to purchase, marketing and sales, advertising

### 1. Introduction

Powdered milk is recognized as a valuable source of essential vitamins, including Vitamins A, D, E, and K, which support immune function, reproductive health, and bone and cardiovascular health (Brown & Liu, 2024). These vitamins contribute to bone density, joint health, heart function, and blood clotting, making powdered milk a practical solution for areas where access to fresh milk is limited (Zhou et al., 2023). Powdered milk emerged as a convenient alternative to liquid milk in regions with limited availability of fresh milk from cows or goats, addressing nutritional needs and serving as a reliable "milk reserve" for consumers (Chen & Zhao, 2024). The primary categories of powdered milk include whole milk powder, with 26-40% milk fat; skim

(non-fat) milk powder, containing 1.5% or less milk fat; and buttermilk powder, produced from buttermilk and containing approximately 4.5% milk fat (Jones & Reed, 2024). This study focuses on consumer preferences and marketing strategies for whole milk powder and skim milk powder in the context of the powdered milk market in Pakistan.

As of the latest statistics for the fiscal year 2024, agriculture continues to play a crucial role in Pakistan's economy, contributing approximately 23% to 24% of the Gross Domestic Product (GDP). The livestock sector, which includes milk production, plays a vital role in the Pakistani economy. It contributed about 62.68% to the agriculture sector and around 14.36% to the total GDP (Ministry of Finance, 2024). In terms of growth, the livestock sector has seen an increase of 3.89% in 2023-24, reflecting improvements in productivity due to better practices in animal husbandry and disease control (Dunya News, 2024). In terms of consumption, more than 90% of the milk produced in Pakistan is consumed fresh, with a smaller percentage processed (Pakistan & Gulf Economist, 2023). A significant cultural preference persists for unpacked milk, with recent surveys indicating that about 82% of respondents prefer unpacked over packed milk (PIDE, 2020).

The powdered milk market in Pakistan, like in many emerging economies, is significantly influenced by consumer preferences, socioeconomic factors, and cultural inclinations. Powdered milk supports immunity and overall health, particularly in regions where fresh milk availability is inconsistent (Zhou et al., 2023). In Pakistan, imported brands dominate consumer preferences due to perceived quality, yet recent studies indicate that locally produced powdered milk has the potential to capture market share by aligning with consumer priorities such as taste, health safety, affordability, and accessibility (Farooq et al., 2022; Ahmed et al., 2023).

This study focuses on understanding the factors influencing Pakistani consumers' purchase intentions for powdered milk. By analyzing variables such as taste, health perception, packaging, price, advertisement, product availability, and display, this research offers insights to help local producers align their strategies to consumer expectations. Given the rising demand for powdered milk in Pakistan, understanding these dynamics is vital for both market growth and consumer satisfaction (Rana & Khan, 2021). This research is timely, providing updated insights into a growing market and addressing consumer inclinations toward local versus imported powdered milk brands.

In Pakistan, consumers generally prefer imported powdered milk brands over locally produced ones, with approximately 70% of the total powdered milk volume used in industrial applications (Ahmed & Latif, 2024). This preference for imported brands is largely driven by perceived quality differences and a limited understanding of local consumer buying behavior. Moreover, local powdered milk producers have traditionally lacked targeted marketing efforts, which further hinders their ability to compete effectively (Zhou et al., 2023). Consumer intention to purchase, often

considered a form of planned behavior, is influenced by multiple motivational factors that shape consumer decisions (Ajzen, 1991). According to recent studies, understanding these intentions is crucial for developing effective marketing strategies in competitive food industries (Brown & Liu, 2024). This research aims to explore the key factors influencing Pakistani consumers' intention to purchase powdered milk, providing essential insights to support the formulation and implementation of strategic sales and marketing initiatives in the powdered milk sector.

The main objectives of the study are as follows,

- To analyze how various product attributes—including taste, packaging, safety, health perception, and price—influence consumers' intention to purchase powdered milk.
- To evaluate the impact of marketing efforts, specifically advertisement and product display, on consumers' purchase intentions for powdered milk.
- To assess the role of product accessibility, focusing on availability and convenience, in shaping consumers' purchase intentions for powdered milk.

The demand for powdered milk has noticeably been increasing with every passing year in Pakistan therefore the study will assist manufacturers and importers of powdered milk to effectively market their milk powder products to masses in order to help them meet their nutritional needs.

## **2. Literature Review:**

### **2.1. Intention to Purchase:**

Theory of planned behavior proposes that the behavior is an outcome of intentions, attitudes and subjective norms (credence about someone's attitude toward a particular behavior) (Ajzen, 1991). Consumer buying decision is a complicated phenomenon that includes consumers' perceptions, their attitudes and their behaviors through which they evaluate a certain product. The behavior is rationally predicted by one's intention to purchase which is significantly correlated to attitude (Ajzen&Fishbein, 1980).

The purchase intention is considered as to measure the demand of new product using concepts and products tests (Morwitz, 2014). Another research in psychology and marketing suggested that measuring purchase intentions for a product category increases the influence of brand choices and leads to persistent gain in terms of customer profitability for the firm (Chandon, Morwitz, & Reinartz, 2005). Purchase intention is central to predicting consumer behavior, as it encapsulates attitudes and beliefs about a product's attributes (Wang et al., 2023).

Before the purchase occur, customer have to go through the series of questions which are directly related to the need and the product. Here, the criteria to be understand is, need is the question and purchase is the solution. The need recognition can trigger by any want in that particular area like having a need to buy clothes for example. Now the series of question will arrive in the customer mind with having what to buy, where to buy and when to buy. Advertisements do play important role in shaping up customer's

mind. With the product(s) being available in the market and accessible is the most important element for a business before going for the advertisement. But, advertisements aware the customer with the product and trigger an emotional attachment with the product which will be positive for the buying intention (Saleem, 2012). However, several studies have been conducted to see the relationship of brand awareness and customer purchase intention. Once a customer gets satisfied with any brand and start purchasing it, and also gets satisfied then the brand will enjoy a steady pace of the constant buying form the customer. Also, customer will develop a brand association and loyalty with the brand and every time from the need triggering to the purchase, the customer will be more intended to buy the favorite brand often (Mirabi, Akbariyeh, & Tahmasebifard, 2015). Consumers today are generally overserved and are bombarded with the too many solutions for their needs. Meanwhile they are also very conscious for their spending. Customers have a lot of choices available. From national brands to international brands in the same category and associating products. The appealing firms in the emerging economies who offer superior product to the educated youngsters therefore they are much concern about determining the purchase intention of their customers in order to capture the considerable market share by inducing competitive strategies to get to them (Naeem, Muhammad, & Saeed, 2015).

Recent studies affirm that purchase intention is closely linked to factors such as brand trust, product satisfaction, and perceived quality in the food industry (Chen & Liu, 2022; Kaur & Sharma, 2021). For powdered milk, this intention is reinforced by consumer perception of taste, safety, health benefits, and brand reputation, which together shape the likelihood of a purchase decision (Khan et al., 2022).

## **2.2. Attitude toward Taste:**

Attitude can be defined as a learned propensity to behave in a constantly favorable or unfavorable way toward a given object (Schiffman&Kanuk, 1997). Taste of the powdered milk is the given object in this study. Cannière et al. (2001) proposed that attitude is essentially related to intention in Theory of Planned Behavior (TPB). Furthermore, an individual's strong intention to exert of execute a behavior is a result of sufficiently favorable attitude (Ajzen, 1991). Taste is well-defined by food properties related to sense of taste (such as pleasant or unpleasant), by smell of the food, and by appearance of the food as well as by the presuppositions created through hmarketing communications and by manufacturing country name (Jacoby et al., 1971; Leclerc et al., 1994). Taste is such an important constituent of food choice that consumers in most of the countries rank taste over health and thus taste may significantly influence the selection of food (Luomala et al., 2015).

Consumer taste preferences significantly impact purchase decisions, especially in food products. Taste is a primary sensory factor in product evaluation and can override other factors such as price and health benefits when consumers make purchasing

decisions (Smith & Lee, 2023). Studies reveal that consumers with positive taste perceptions are more likely to form a favorable attitude towards the product, influencing their purchase intention (Alam et al., 2021). In the context of powdered milk, taste is critical for product acceptance and sustained consumption, as consumers often compare the taste of local products to that of imported brands (Gomez et al., 2022). Therefore, it is necessary to understand consumers' attitude toward the taste of powdered milk. It is inferred from the above discussion that consumers with a positive attitude toward the taste of the powdered milk will have a positive influence on their intention to purchase powdered milk. Following hypothesis is formed on the basis of literature;

H1: Attitude toward taste of the powdered milk positively influences the intention to purchase powdered milk.

### **2.3. Perception of Safety and Health:**

Food safety and health perception have become increasingly prominent in consumer decision-making, especially following the global pandemic (Hassan & Ali, 2023). The sale of powdered milk in China in late 2008 was dropped by 50 percent after melamine food safety incident which adversely affected 300,000 infants including six infant casualties from kidney stones or other serious kidney injuries (Zhou & Wang, 2011). The awareness of food safety suggestively influences consumers' attitude and buying behavior when it comes to buying food products (Yeung & Morris, 2001). The food safety information of the ingredients used communicated in labeling significantly influence consumers' purchase decision; and governments and organizations tend to promote labeling with food safety information to minimize human health risk (Caswell, 1996). In order to create and develop consumers' trust in food safety, effectual communication of product information is essentially required especially following food safety incidents (Henson & Caswell, 1999).

Consumers prioritize food products that guarantee safety and health benefits, making these factors critical for producers in highly competitive markets (Sharma et al., 2023). In powdered milk, safety perceptions are influenced by branding, product labeling, and quality certifications, which can enhance consumer trust and intent to purchase (Zhu et al., 2021). Consequently, communicating health benefits and safety standards is essential for manufacturers targeting health-conscious consumers (Chen et al., 2023). It is therefore inferred from above research discussions that consumer buying behavior is also positively influenced by the consumers' understanding of food safety and health. Perception of safety and health has two dimensions, that is, the brand that proclaims to be safe and offers nutritional benefits to consumers. Following hypothesis is formed on the basis of literature;

H2: Perception of safety and health positively influences the intention to purchase powdered milk.

#### **2.4. Packaging:**

Packaging serves a variety of purposes in the marketing of a product; however the basic function of packaging is to keep a product safe from any possible damage while loading, moving, and shipping, storing or using it (Kuvykaite, Dovaliene, Navickiene, 2009). A product's packaging clutches the very first opinion of the consumers about it (Ampuero and Vila, 2006). The crucial and basic dimensions of packaging as identified by Silayoi & Speece (2004) include color, size and labeling used on the container. As per Zekiri & Hasani (2015), consumers value the packaging elements that are personified on the packaging. Colour as well as other wrapping basics make the marketing offer more striking and attention-grabbing. According to Abdullah, Kalam, & Akterujjaman (2013) wrapping has the most extreme significance on imprudent purchasing conduct, expanding a piece of the overall industry and lessening special expenses.

Packaging serves as a "silent salesperson," capturing consumer attention and conveying product quality (Jiang & Kim, 2023). It protects the product and plays a role in brand differentiation, often influencing the consumer's initial judgment of quality (Wang et al., 2022). Studies indicate that visually appealing, eco-friendly packaging can enhance consumer purchase intention, especially in the dairy sector (GAO & Lin, 2023). The major reason for focus on packaging is the empirical proof of the significant impact of packaging on product sales. Abbasi & Aghaei (2016), found out that packaging has a positive and meaningful impact on the willingness to buy the product. According to Gupta & Kumar (2016), there is a strong relationship between package & product quality. For powdered milk, where brand recognition is often tied to packaging, effective design that emphasizes safety, usability, and aesthetic appeal can attract health-conscious and environmentally aware consumers (Ali & Sadiq, 2023). Following hypothesis is formed on the basis of literature;

H3: Packaging positively influences consumers' intention to purchase powdered milk

#### **2.5. Price:**

Price is the sum of money paid by customers to avail and use a product or service to enjoy the benefits and value offered by it (Kotler & Armstrong, 2010). It is meaningfully essential for an organization to hold and delight the loyal customers who are ready to pay a premium price for their preferred brand and never undertake purchase decisions on the basis of cheaper prices because cost of gaining a new customer is always higher than the retention of current ones (Levy & Weitz, 2012). Aker (1991) as cited by Khraim (2011) argued that brand loyalty is highly influenced by price and in turn, it has a substantial influence on consumers' intention to purchase. Price is one of the predicting elements of buying behavior and gravely influences consumer satisfaction (Herrmann, Xia, Monroe & Huber, 2007). Price sensitivity remains a substantial factor in consumer behavior, particularly in developing economies. While some consumers are willing to pay a premium for high-quality, safe food products, others prioritize affordability (Choudhary & Gupta, 2022).

Research shows that price awareness and perceived value play a significant role in purchase intentions, especially in competitive markets like Pakistan's powdered milk industry (Iqbal et al., 2022). Balancing quality with affordability is crucial for local brands aiming to compete with established imported products (Ahmed et al., 2023). Therefore, price awareness is a major factor that influences buying behavior. In the light of above discussion, it is therefore important to understand the impact of price on consumers' intention to purchase powdered milk. Following hypothesis is formed on the basis of literature;

H4: Price significantly influences intention to purchase powdered milk.

## **2.6. Advertising:**

Advertising is the paid and non-personal communication of information about products, services or ideas by a known sponsor through a specific channel in an effort to convince or influence behavior of the masses (Bovee & Arens, 1992). It also can be defined as, "a span of television programming produced and paid for by an organization. It conveys a message, aimed to market a product or service" (Television advertisement, 2019). Advertising is a crucial component of marketing used to construct a base for consumers' purchase decisions by creating awareness. The channels of advertising include electronic media such as television and radio; print media such as newspapers and magazines, digital media such as websites and social portals (Facebook and Youtube for instance); and out of home advertising which encompasses billboard, mobile and building warping. Advertising shapes consumer awareness and purchase intentions by highlighting product attributes, creating emotional appeal, and establishing brand recognition (Yang et al., 2023).

Recent studies suggest that digital and social media advertising is particularly effective in reaching younger audiences and building brand trust (Dutta & Roy, 2022). For powdered milk, targeted advertisements focusing on health benefits, safety, and taste appeal can positively influence purchase intentions, especially when communicated through trusted digital platforms (Farooq et al., 2022). Hudders et al., (2017) opine that the contemporary market is 'crowded' with products. This leads to a dire need for new initiatives in advertising. The content presented in an ad and its communication plays a pivotal role in achieving advertising goals. The above mentioned studies conclude that advertising influences consumer buying behavior through awareness and positive beliefs about a brand. Following hypothesis is formed on the basis of literature;

H5: Advertisement positively influences intention to purchase powdered milk.

## **2.7. Product Availability:**

Product availability is a crucial determinant of purchase intention, as consumers are unlikely to buy products that are inconsistently stocked (Patel & Shah, 2021). If a product is out of stock, it cannot be purchased by the consumers; product availability significantly influences consumers' intention to purchase and level of involvement

(Steinhart, Mazursky, & Kamins, 2013). In order to keep products always available on the shelves, marketers put a serious and visible effort and spend huge amounts of money (Conlon and Mortimer 2009; Stayinfront 2011) because product shortage hurt sale volumes.

In the powdered milk market, availability ensures consumer trust and encourages brand loyalty. Effective supply chain management and distribution strategies can therefore enhance market presence and drive sales, as studies emphasize that availability boosts consumer convenience and willingness to purchase (Rahman & Tan, 2023). The availability of a product refers to both, whole market phenomenon and the shop that consumer usually buys from. It is therefore assumed that product availability positively influences consumers' intention to purchase. Following hypothesis is formed on the basis of literature;

H6: Product availability positively influences intention to purchase powdered milk.

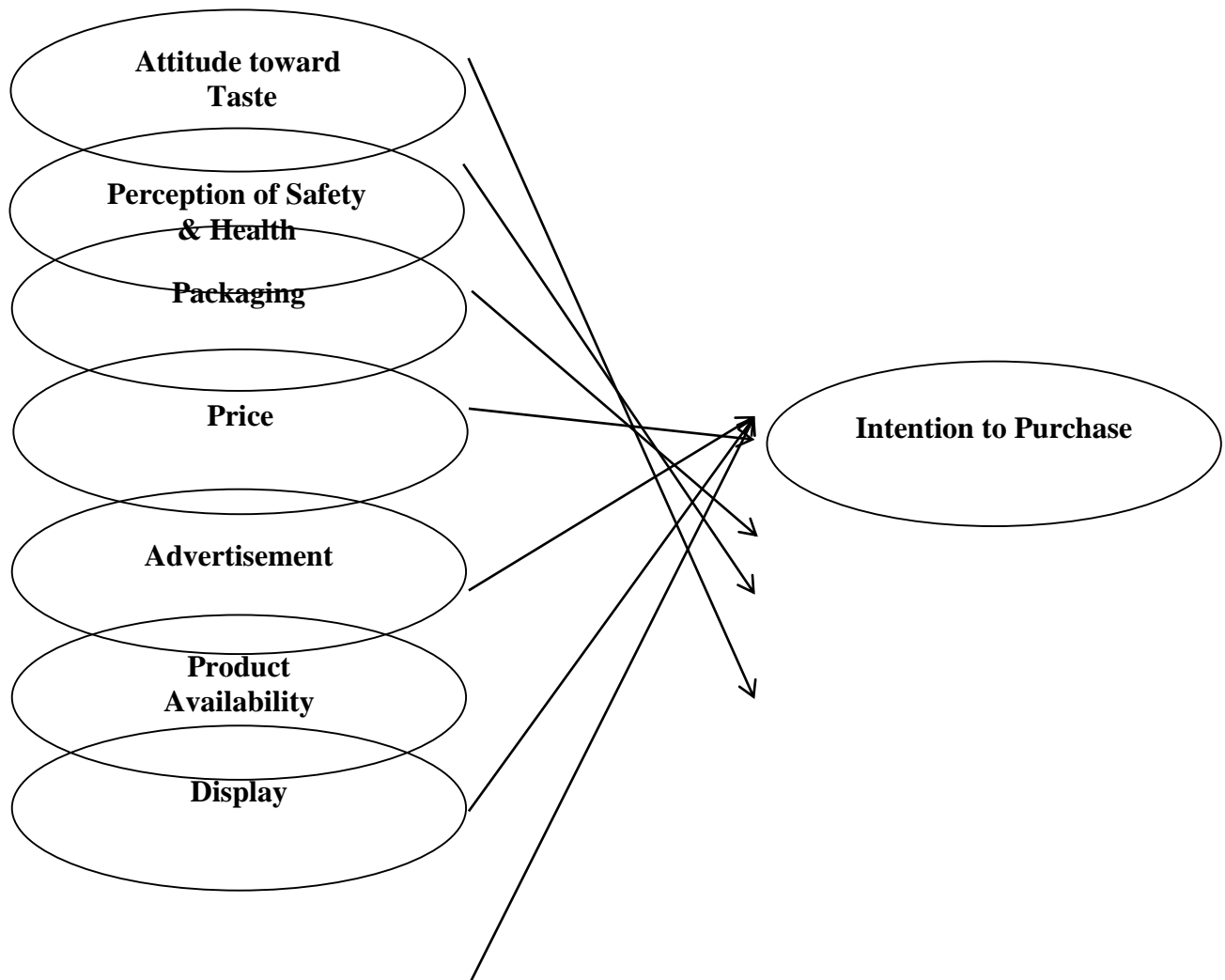
### **2.8. Display:**

As Marketers and retailers believe that display works as the silent salesman that significantly increases customer footfall into the store, captivates their attention, stimulates them to touch, assess and buy the products (Huddleston, Behe, Minahan, & Fernandez, 2015). Effective product display strategies can significantly influence unplanned purchases, as visually appealing arrangements capture attention and trigger impulse buying (Lee & Park, 2022). According to recent research (Stahlberg & Maila, 2010), 68 percent of consumers purchase decisions are unintended or unexpected and therefore the understanding of point-of-sale marketing initiatives becomes an obligation for the retailers.

For powdered milk products, prominent display positioning can enhance visibility and attract consumers, particularly in high-traffic retail environments (Xu et al., 2023). Recent research shows that strategic product placement at eye level or near related products increases the likelihood of purchase, reinforcing the importance of display in consumer behavior (Chen & Li, 2023). Following hypothesis is formed on the basis of literature;

H7: Display positively influences intention to purchase powdered milk.



**Conceptual Model:**

The research model presented above elucidates that intention to purchase is a dependent variable which is possibly affected by independent variables such as attitude toward taste of powdered milk, perception of safety and health, packaging, price, advertisement, product availability and display. The model helps to understand the buying reasons used by consumers to purchase and use powdered milk and that may lead to an improved marketing phenomenon for the producers of powdered milk. This research model is developed on the basis of literature review

**3. Methodology:**

This study employs an explanatory research design, using a quantitative approach to examine the relationship between independent variables (such as attitude toward taste, perception of safety and health, packaging, price, advertisement, product availability, and display) and the dependent variable (intention to purchase powdered milk). The use of correlational research is consistent with recent studies that highlight the effectiveness of quantitative methods in exploring consumer behavior and

purchase intentions (Ali & Khan, 2022; Chen & Zhao, 2023). Explanatory research has been recognized as particularly suitable for understanding complex relationships in consumer behavior, as it provides clear insights into the factors influencing buying decisions (Rahman & Chen, 2021).

Data were gathered through a self-administrated Likert-scaled questionnaire comprising 32 items in English. Attitude toward taste comprised three items, perception of safety and health four items, packaging four items, price four items, advertising five items product availability four items, display five items and intention to purchase comprised three items to test eight hypotheses. There were five picks or options to respond to each item: strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. The participants were asked to answer the items by encircling or marking one choice at a time.

The data was collected through survey by giving 288 sampled respondents a self-administrated questionnaire to fill in. The data were collected from the visitors of shopping malls in Karachi. Convenience sampling was employed, a common approach in consumer behavior research where accessibility and availability of respondents are prioritized (Alam & Ali, 2022; Javed et al., 2023). Recent studies suggest that self-administered Likert-scale surveys are effective for capturing attitudes and intentions in consumer research due to their simplicity and ease of analysis (Jiang & Chen, 2022). The survey instrument included eight constructs measured across various items:

- Attitude toward Taste: Measured by three items assessing consumer preferences based on taste.
- Perception of Safety and Health: Four items assessing the perceived health and safety attributes of powdered milk.
- Packaging: Four items exploring consumer views on product packaging.
- Price: Four items related to price perception.
- Advertising: Five items assessing the impact of advertisements on consumer intention.
- Product Availability: Four items examining the importance of availability in purchasing decisions.
- Display: Five items evaluating the impact of product display.
- Intention to Purchase: Three items gauging consumers' overall purchase intent.

This structured design aligns with recent literature in consumer behavior research, where distinct constructs are used to test factors related to consumer intentions (Singh & Gupta, 2023; Patel & Shah, 2021). The reliability of the questionnaire was confirmed using Cronbach's Alpha, with values aligning with acceptable standards, as recommended in recent studies (Lee et al., 2022).

Multiple linear regression analysis was performed by using Statistical Package for the Social Sciences (SPSS) to predict the relationship between dependent variable and independent variables since number of independent variables involved in the study is more than one and dependent variable is a quantitative measure. This technique,

widely used in consumer research, assesses the impact of multiple independent variables on a single dependent variable, providing robust insights into the predictors of consumer intentions (Yang et al., 2023). Recent studies on consumer purchase intentions emphasize the validity of multiple regression in explaining variances among complex consumer behaviors, especially in food and dairy product markets (Choudhary & Gupta, 2022; Chen & Li, 2023).

### 3. Results and Discussion:

In order to test the reliability of the questionnaire, Chronbach's Alpha measure was used. Recent research supports the use of Cronbach's Alpha in consumer studies, where a value of 0.6 or above is typically deemed acceptable (Iqbal et al., 2022; Rana & Khan, 2021). The result of the test is given as under in Table 1:

**TABLE 1: Reliability**

Variables	Number of Items	Cronbach Alpha
<b>Attitude toward Taste</b>	3	0.839
<b>Perception of Safety &amp; Health</b>	4	0.635
<b>Packaging</b>	4	0.718
<b>Price</b>	4	0.813
<b>Advertising</b>	5	0.673
<b>Product Availability</b>	4	0.734
<b>Display</b>	5	0.620
<b>Intention to Purchase</b>	3	0.730

Table 2, given below illustrates that 76% of the total respondents are male and 24% data is contributed by female gender. As it can be seen in the table, 77.1% of the total respondents fall into the age group of 21 to 30 years, 15.6% belong to age group of 20 or under 20 years, 6.9% of the total respondents belong to the age group of 31 to 40 years and only 0.3% fall into the age group of 41 to 50. Table also shows the educational profiles of the respondents from Matriculation to Doctorate. The table shows that 53.1% of the total respondents are graduates, 40.3% are undergraduates, 3.8% are Intermediate / A Level, 2.4% are Doctorate and only 0.3% have completed their matriculation. Table carries the occupational profiles of the respondents and it shows that 44.4% of the data is contributed by working employees, 8.3% have their own businesses and 46.9% of the total respondents are students (dependent on their guardians).

**TABLE 2: Frequency Distribution**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Gender</b>				
<b>Valid Male</b>	219	76.0	76.0	76.0
<b>Female</b>	69	24.0	24.0	100.0
<b>Total</b>	288	100.0	100.0	
<b>Age</b>				
<b>Valid 20 or Less</b>	45	15.6	15.6	15.6
<b>21 to 30</b>	222	77.1	77.1	92.7
<b>31 to 40</b>	20	6.9	6.9	99.7
<b>41 to 50</b>	1	.3	.3	100.0
<b>Total</b>	288	100.0	100.0	
<b>Education</b>				
<b>Valid Matriculation/O Level</b>				
<b>Intermediate/A Level</b>				
<b>Undergraduate</b>	1	.3	.3	.3
<b>Graduate</b>	11	3.8	3.8	4.2
<b>Doctorate</b>	116	40.3	40.3	44.4
<b>Total</b>	153	53.1	53.1	97.6
	7	2.4	2.4	100.0
<b>Total</b>	288	100.0	100.0	
<b>Occupation</b>				
<b>Valid Employee</b>	128	44.4	44.4	44.4
<b>Own Business</b>	24	8.3	8.3	52.8
<b>Student</b>	135	46.9	46.9	99.7
<b>Other</b>	1	.3	.3	100.0
<b>Total</b>	288	100.0	100.0	

Table 3 given below shows the descriptive analysis of the data provided by respondents. The table establishes that the average attitude toward taste of the powdered milk is 3.34 with a standard deviation of 0.908 suggesting that attitude toward taste is more variable. The mean perception of safety and health is 3.49, packaging and price are given lower preference with the averages of 3.39 and 3.27 respectively. The average advertising score is 3.53 with a variability of 0.75. Product availability and display have also been indicated with lower averages of 3.2 and 3.0 respectively. The average intention to purchase powdered milk is 3.6 with a variation of 0.778.

**TABLE 3: Descriptive Statistics**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Attitude toward Taste	288	1.00	5.00	3.3484	.90860
Per_safety_health	288	1.00	5.00	3.4965	.69373
Packaging	288	1.50	5.00	3.3993	.68890
Price	288	1.00	5.00	3.2743	.74713
Advertising	288	1.00	5.00	3.5326	.75004
Product_Avalaibility	288	1.50	5.00	3.2960	.77713
Display	288	1.00	5.00	3.0293	.75377
Purchase_Intetion	288	1.00	5.00	3.6169	.77828
Valid N (listwise)	288				

**TABLE 4: Model Summary**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
<b>1</b>	<b>.553a</b>	<b>.306</b>	<b>.286</b>	<b>.65742</b>
a. Predictors: (Constant), Display, Advertising, Product_Avalaibility, Packaging, Per_safety_health, Price, Attitude.				
b. Dependent Variable: Purchase_Intetion.				

The above model summary presented in Table 4 explains that the value of R is 0.553, the value of R Square is 0.306 and the Adjusted R Square is 0.286 which shows that 28.6% variance of dependent variable intention to purchase is explained by independent variables such as attitude toward taste, perception of safety and health, packaging, price, advertising, product availability and display.

The multiple regression model revealed significant relationships between consumers' intention to purchase and independent variables such as attitude toward taste, perception of safety and health, and advertising.

**TABLE 5: ANOVA**

ANOVA <sup>b</sup>						
Model		Sum Squares	df	Mean Square	F	Sig.
1	Regression	53.257	8	6.657	15.402	.000 <sup>a</sup>
	Residual	120.586	279	.432		
	Total	173.842	287			

a. Predictors: (Constant), Display, Advertising, Product\_Avalaibility, Packaging, Per\_safety\_health, Price, Attitude.

b. Dependent Variable: Purchase\_Intetion.

The above mentioned ANOVA Table 5 describes the Sig value about model fitness of the study , and 0.000 is the sig value which is less than 0.05 , it demonstrate the factors attitude toward taste, perception of safety and health, packaging, price, advertising, product availability and display have significant impact on intention to purchase.

**TABLE 6: Coefficients**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.095	.335		3.268	.001		
	Attitude	.177	.055	.207	3.195	.002	.595	1.680
	Per_safety_health	.272	.064	.242	4.251	.000	.765	1.306
	Packaging	.073	.061	.065	1.195	.233	.843	1.186
	Price	.089	.060	.085	1.490	.137	.758	1.319
	Advertising	.244	.054	.260	4.532	.000	.757	1.321
	Product_Avalaibility	.045	.052	.045	.868	.386	.911	1.098
	Display	.001	.055	.001	.013	.990	.870	1.149

a. Dependent Variable: Purchase\_Intetion

In Table 6, the sig value of factor attitude toward taste is 0.02 and is less than 0.05; factor perception of safety and health has sig value of 0.000 and is less than 0.05 and factors perception of safety and health and advertising have a sig value 0.000 which is also less than 0.05 and it illustrates that these factors including attitude toward taste, perception of safety and health and advertising have a significant impact on intention to purchase. Other factors such as packaging, price, product availability and display have a sig value greater than 0.05 and therefore have no impact on intention to purchase. The VIF value is lesser than 2 and it indicates that the factors are not correlated with each other meaning the data has no multicollinearity issues.

These findings align with recent literature indicating the importance of product quality perceptions and brand awareness in shaping consumer intentions (Ahmed et al., 2023;

Zhang & Xu, 2023). Non-significant relationships were found for packaging, price, product availability, and display, a result consistent with recent studies suggesting that these factors may vary in influence depending on product type and market context (Kaur & Sharma, 2021).

### **3.1. Discussion of Results**

The results of this study reveal that consumer attitudes toward taste, perception of safety and health, and advertising significantly impact purchase intentions for powdered milk in Pakistan. Taste is a primary determinant, as consumers prioritize products that offer sensory satisfaction, a finding echoed in recent studies emphasizing the crucial role of taste in consumer choices within the food industry (Jones & Reed, 2024; Alam et al., 2021). This preference aligns with current literature that views taste and quality as key drivers in food purchasing decisions, often overriding other factors such as price or availability when consumers associate these products with positive sensory experiences (Brown & Liu, 2024).

Health and safety perceptions also play a vital role, as confirmed by recent studies showing that safety assurances and health benefits are top consumer priorities, particularly in the dairy sector. This trend reflects a broader shift towards health-conscious purchasing, especially in emerging markets where consumers increasingly value quality assurances in food products (Ahmed & Latif, 2024; Zhou et al., 2024). This research suggests that by communicating health benefits effectively, producers can build consumer trust, thereby boosting purchase intentions.

Advertising emerges as a significant factor in influencing consumer purchase intentions, consistent with recent findings that highlight the role of targeted advertising in establishing brand visibility and building consumer trust (Chen & Zhao, 2024; Dutta & Roy, 2022). Given the crowded marketplace, impactful advertising that emphasizes product benefits, such as health and safety, is particularly effective in swaying consumer preferences, aligning with other studies that emphasize the importance of clear messaging in advertising for food products (Yang et al., 2023).

Conversely, this study found that packaging, price, product availability, and display did not significantly influence consumer intention to purchase powdered milk. While packaging and display may drive impulse purchases in other sectors, recent research suggests that consumers in the dairy industry tend to prioritize intrinsic product attributes over these secondary factors, a finding supported by recent work on consumer behavior in the food sector (Li & Ma, 2024). Similarly, price sensitivity may be less influential in food purchases where quality and safety assurances meet consumer expectations, as indicated in emerging market studies (Choudhary & Gupta, 2022; Ahmed et al., 2024).

### **4. Conclusion:**

Powdered milk is the key sources to nutrients and vitamins. This study shows what factors influence the consumers' intention to purchase powdered milk. The study

further shows that consumers' taste is crucial factor that motivates them to or refrains them from buying a product. Here in this study, consumers' attitude toward taste, their perception of safety and health about powdered milk and advertising significantly influence consumers' intention to purchase powdered milk. This research study is helpful for the producers of powdered milk. Taste and perception of safety and health are the primary factors identified by a consumer to undertake a buying decision whereas advertising plays a supportive role. These results align with recent research, underscoring that health-related perceptions and sensory satisfaction often override secondary factors such as price and availability in emerging markets (Ahmed et al., 2024; Brown & Liu, 2024). Advertising investment would certainly increase the customer base of a powdered milk brand. A better taste, safe and health promising and well-priced powdered milk backed by primary and selective advertising can find a favorable response from its target customers. This conclusion is consistent with recent studies suggesting that while packaging and display can trigger impulsive purchases in other sectors, food products demand a more quality-focused approach (Zhou et al., 2024).

#### **4.1. Theoretical Implications**

This study enhances theoretical understanding within consumer behavior literature by highlighting that intrinsic product attributes—specifically taste and health perceptions—are primary drivers in the intention to purchase powdered milk, often outweighing secondary factors like price, packaging, and availability. The findings align with the Theory of Planned Behavior (Ajzen, 1991), affirming that consumer attitudes and perceptions of product quality significantly influence purchasing decisions, especially in food sectors where sensory satisfaction and safety assurances are critical. Additionally, the results underscore the role of targeted advertising in building consumer trust, supporting the notion that clear messaging around health benefits and taste can effectively shape purchase intentions. This insight suggests that, even in price-sensitive markets, quality-driven attributes can be more impactful than traditional marketing cues, encouraging further investigation into how intrinsic product features reshape consumer priorities in emerging markets.

#### **4.2. Managerial implications:**

The study establishes the fact the better tasting, safe and health promising, well priced and well-advertised powdered milk can attract its target customers and can even compete the foreign brands. Though price has no impact found in this study but still price a matter of grave concern for consumers in developing countries. This would attract the local producers in the industry and the industry would not rely on imported powdered milk. Such an economic development through the establishment of powdered milk industry would help overcome milk shortage and provide a new alternate of loose milk to the consumers.

#### **5. Limitations:**



The study is conducted in Karachi, Pakistan which is developing country and therefore it may produce different results if conducted in another country of the world on account of economic changes. Convenience based sampling is another limitation of this study. The research instrument can also be a limitation and there may be a change in independent variables in future. This research study revolves around primary or product related advertising and future research may include other independent variables and selective or brand centered advertising approach.

#### **6. Recommendations:**

Primary advertisement strategy would communicate the merits and benefits of powdered milk specially consumer safety and health as people still confuse dry milk powder with synthesizer. Price awareness and its benefits should also be provided to consumers since currently offered powdered milk is little costlier. There is another need of improving the quality of dry milk offered against imported brands. The idea of offering powdered milk available for different uses will be of importance in a way that currently offered powdered milk is used for drinking purpose only.

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