

**“Impact of Packaging Attributes on consumer Purchase Intentions through the lens of
perceived Quality in the Cosmeceutical Industry”**



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MBA 2 YEARS WEEKEND PROGRAM

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Bahria University Islamabad Spring-2024

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Abstract

The primary objective of this study was to explore the role of packaging attributes on consumer purchase intentions, both directly and indirectly, through the mediating effect of perceived quality, within the cosmeceutical industry in the twin cities of Pakistan (Islamabad and Rawalpindi). This investigation delved into how different elements of packaging, such as color, design, material, printed information, and font style, influence consumer perceptions and their subsequent purchasing decisions. To achieve this, a total of 306 questionnaires were distributed to consumers in these cities, ensuring a diverse representation of the target population. Structural Equation Modeling (SmartPLS-SEM) was employed to assess the hypotheses, providing a robust analytical framework for understanding the complex relationships between packaging attributes, perceived quality, and consumer purchase intentions. The study's results revealed a significant indirect positive association between packaging attributes and consumer purchase intentions, mediated by perceived quality. This indicates that while packaging attributes alone can influence purchase decisions, their impact is significantly enhanced when they improve the perceived quality of the product. An intriguing aspect unearthed in this research is the mediating role of perceived quality in the relationship between packaging attributes and consumer purchase intentions.

These findings bear particular importance for managers and marketers in the cosmeceutical industry, emphasizing the need for the effective implementation of high-quality packaging strategies. By focusing on improving packaging attributes, companies can enhance the perceived value of their products, leading to increased consumer purchase intentions. The study recommends that organizational leadership incorporate strategies to enhance packaging attributes, such as investing in premium materials, ensuring detailed and accurate product information, and using elegant and readable font styles to improve overall consumer purchase intentions.

Keywords: Packaging Attributes, Consumer Purchase Intentions, Perceived Quality, Packaging Color, Packaging Design, Packaging Material, Printed Information, Font Style, SEM, Cosmeceutical Industry, Twin Cities of Pakistan

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Chapter 1

Introduction

1.1 Background of the study

In the highly competitive cosmeceutical industry, where products blend the benefits of cosmetics and pharmaceuticals, packaging is pivotal in influencing consumer perceptions and purchasing decisions. The cosmeceutical market, characterized by its promise to deliver both aesthetic and therapeutic benefits, has seen significant growth over the past decades. This growth is driven by increasing consumer awareness and demand for products that not only enhance appearance but also provide health benefits. As such, cosmeceutical brands must differentiate themselves in a crowded marketplace where packaging often serves as the first point of interaction between the consumer and the product.

Packaging features such as design, color palette, labeling, and material choice are not merely functional elements but are critical in conveying the product's value and quality. These attributes protect the product and act as a communication tool that conveys the brand's promise and values. Studies have consistently demonstrated that packaging plays a substantial role in shaping consumer choices, frequently serving as a brand representative that influences customers' perceptions of product quality (Silayoi & Speece, 2007; Ampuero & Vila, 2006). For instance, research by Ampuero and Vila (2006) and Silayoi and Speece (2007) highlights how packaging attributes can affect consumer evaluations and choices, reinforcing the need for brands to strategically design their packaging.

Numerous research studies have focused on consumer behavior and underscored that perceived quality is a complex concept influenced by various factors, including packaging. Notably, Zeithaml's (1988) research and subsequent studies have emphasized the significance of perceived quality in shaping consumer preferences and purchase intentions. In the cosmeceutical industry, where product differentiation is of utmost importance, packaging attributes serve as visual cues that enable consumers to evaluate the effectiveness, safety, and reliability of a product. This is particularly relevant as cosmeceuticals often position themselves at the intersection of beauty and health, requiring a high degree of consumer trust.

Zeithaml (1988) proposed that perceived quality is a consumer's judgment about a product's overall excellence or superiority, which is directly influenced by packaging attributes. The visual appeal, material quality, and information presented on the packaging can significantly impact the perceived quality of cosmeceutical products. For example, a sleek and modern design might suggest innovation and effectiveness, while the use of sustainable materials might appeal to environmentally conscious consumers.

The rise of private labels and intensifying competition has compelled cosmeceutical brands to allocate significant resources toward packaging strategies that highlight perceived quality. The design of the packaging can elicit emotions, establish an impression of exclusivity, and convey the underlying principles of a brand. For example, the utilization of minimalist and environmentally friendly materials can imply sustainability, whereas sleek designs and vibrant colors can indicate innovation and effectiveness (Silayoi & Speece, 2007; Rundh, 2009). Brands like La Roche-Posay, for instance, use clean, clinical designs that emphasize their scientific approach and efficacy, while brands like Tatcha employ luxurious packaging that reflects their premium positioning and heritage. These strategic packaging choices are not incidental but are carefully crafted to align with brand messaging and consumer expectations.

It is critical to comprehend how packaging affects consumers' perceptions of quality. It is crucial to investigate the ways in which various packaging characteristics affect consumers' intentions to make purchases. This study, which focuses on the cosmeceutical sector, attempts to add to the body of knowledge by examining the connection between perceived quality and packaging characteristics. The research will specifically analyze how packaging attributes, when perceived as indicators of quality, affect consumers' intentions to make a purchase.

The research questions are derived from studies by Garber, Burke, and Jones (2000) and Silayoi and Speece (2007), which emphasize the critical role of packaging in consumer decision-making processes. By exploring these questions, this study aims to provide valuable insights for marketers and product developers, enabling them to refine their packaging strategies, create brand differentiation, and ultimately influence consumer behavior in this dynamic market.

The study's conclusions will offer practical advice on how cosmeceutical companies might use packaging features to raise perceived quality and encourage consumer purchase intentions. To properly position their products in a competitive market and fulfill the changing demands and preferences of customers, brands must comprehend the complex relationship that exists between packaging qualities and consumer perceptions. In addition to adding to the body of knowledge in academia, this research will have real-world applications for the cosmeceutical sector, supporting the creation of packaging tactics that appeal to customers and promote brand success.

1.2 Problem statement

The cosmeceutical industry relies on the connection between scientifically supported components and the trust consumers have in the effectiveness of a product. While the presence of high-quality ingredients and clinical evidence is essential (Lockshin & Chaudhuri, 2020), it can be difficult to translate these advantages into purchasing decisions. Unlike pharmaceuticals, which have clear indicators of efficacy, cosmeceutical products often lack tangible cues for assessing quality. As a result, packaging plays a crucial role as a silent salesperson, influencing the perceived quality of a product even before customers examine the ingredients list (Rundh, 2013).

Packaging in the cosmeceutical industry serves multiple functions, from protecting the product to communicating brand values and promises. Given the absence of immediate, observable effects that consumers can use to judge the efficacy of cosmeceuticals, packaging attributes such as design, color palette, material choice, and information clarity become essential proxies for quality. The design and aesthetic elements of packaging can evoke emotional responses, suggest luxury or value, and ultimately impact purchase decisions.

Studies have shown that these packaging attributes can significantly influence consumer behavior by shaping perceptions of a product's effectiveness and quality. For instance, the material and color of packaging can create an impression of premium quality, while clear and concise information on the packaging can enhance trust and credibility (Jain et al., 2021; Singh et al., 2020). However, without a tangible way to assess the product's efficacy directly, consumers rely heavily on these visual and informational cues provided by the packaging (Mordor Intelligence, 2021).

The purpose of this study is to investigate how packaging characteristics affect consumers' perceptions of product quality, particularly about cosmeceutical products. Through investigating how these characteristics influence customers' perceptions of a product's efficacy, the study aims to offer significant perspectives for cosmeceutical companies to improve their packaging design.

This involves a detailed analysis of various packaging attributes, including material, color, design, printed information, and font style, to determine how each element influences perceived quality and purchase intentions. This approach will enable cosmeceutical brands to identify which packaging features most effectively communicate quality and build consumer trust.

By leveraging these insights, brands can develop packaging strategies that not only attract consumers but also reinforce the perceived efficacy of their products. For example, using high-quality, eco-friendly materials can appeal to environmentally conscious consumers, while minimalist designs can suggest sophistication and innovation (Jain et al., 2021). Clear labeling and informative graphics can help demystify the product's benefits and build credibility (Kim & Chao, 2022).

Ultimately, the goal is to provide actionable recommendations for cosmeceutical brands to create packaging that enhances consumer perceptions of quality, fosters trust in the product's effectiveness, and drives purchase decisions. This will not only improve brand differentiation but also support sustained growth and competitiveness in the dynamic cosmeceutical market.

1.3 Research Objectives

To evaluate the impact of packaging attributes (color, design, material, printed information, and font style) on perceived quality.

To investigate the mediating role of perceived quality between packaging attributes (color, design, material, printed information, and font style) and consumer purchase intention.

1.4 Research Questions

Does packaging attributes (color, design, material, printed information, and font style) impact perceived quality?

Does perceived quality mediate the relationship between packaging attributes (color, design, material, printed information, and font style) and consumer purchase intentions?

1.5 Research Gap

In the competitive cosmeceutical industry, where there is a plethora of product efficacy claims, packaging plays a crucial role as a distinguishing factor that influences consumer decisions to make a purchase (Akhtar et al., 2023). Despite extensive research on the impact of packaging on consumer behavior in general (Mathur & Mathur, 2018; Singh, 2018), there is a notable gap in knowledge when it comes to the specific characteristics of cosmeceutical packaging that have the most appeal to consumers (Uzun et al., 2019). It is essential for cosmeceutical brands to understand these attributes, as strategic packaging design can enhance the perceived quality of the product, which is a significant driver of purchase intentions in this market that prioritizes image (Hussain et al., 2022). The objective of this study is to address the existing disparity by examining the impact of crucial packaging characteristics, including the quality of materials, visual design elements (such as color, shape, and graphics), and the clarity of information, on consumers' intentions to purchase cosmeceutical products. Additionally, we propose that perceived quality serves as an intermediary factor in this association, indicating that consumers link particular packaging attributes with superior perceived quality. Consequently, this perception positively affects their intention to acquire the cosmeceutical product.

With a focus on customers in the Pakistani cities of Rawalpindi and Islamabad, this study examines the influence of packaging qualities on consumer purchase intentions in the cosmeceutical business via the lens of perceived quality. In particular, the study looks at how packaging features including colour, design, material, printed information, and font style directly affect consumers' perceptions of quality (Ampuero & Vila, 2006; Nordin, 2009). Additionally, it looks into how these packaging characteristics may indirectly affect consumers' intents to buy by using perceived quality as a mediating factor (Magnier & Schoormans, 2015; Wang, 2013).

1.6 Scope of study

The primary units of analysis are cosmeceutical consumers in these cities, ensuring generalizability by including participants from various demographic backgrounds. The research includes a focused analysis of specific packaging attributes crucial to the cosmeceutical industry, which relies heavily on consumer perceptions and packaging effectiveness (Silayoi & Speece, 2004; Wells, Farley, & Armstrong, 2007). This component addresses the challenges consumers face in recognizing quality through packaging due to varied preferences, the potential benefits such as increased purchase intentions and brand loyalty and explores marketing strategies that may enhance the perception of quality through packaging (Kotler & Keller, 2016; Underwood, 2003).

1.7 Research Significance

The expanding private brands and home-based brands in the cosmeceutical industry have created an increasingly competitive environment in stores, with the hope that customers will choose their products from the shelf and make a purchase. Product manufacturers need to develop strategies to attract consumers in stores to try their new items while simultaneously differentiating themselves from their competitors. Marketers will be able to better understand whether packaging features including colour, design, material, printed content, and font style influence consumers' intentions to make a buy with the aid of this research study. Furthermore, the aim of this study is to support cosmeceutical producers in formulating their product packaging tactics, given the apparent correlation between consumer purchasing behaviour and perceived quality (Silayoi & Speece, 2007; Orth & Malkewitz, 2008).

Chapter 2

Literature Review

2.1 Packaging Attributes

Packaging, commonly perceived as a simple casing, serves a remarkably diverse purpose in shaping consumer behavior. In the current fiercely competitive retail environment, a thoughtfully crafted package is more than just a vessel; it holds the potential to be a potent marketing instrument. As highlighted by Rundh (2005), changing consumer patterns have fueled the need for inventive packaging solutions that captivate attention and sway purchasing choices. The role of packaging has surpassed its logistical function to emerge as a pivotal marketing component (Kuvykaite et al., 2009).

Studies abound that demonstrate the significant impact packaging has on customer behaviour. In a study by Wells, Farley, and Armstrong (2007), it was found that an astounding 73% of respondents depend on packaging to help them make decisions about what to buy at the point of sale. The importance of designing packaging that successfully connects and communicates with the intended target audience is emphasized by this.

Butkeviciene and colleagues (2008) classify packaging characteristics into two primary categories: verbal and non-verbal. Verbal attributes consist of components such as brand name, product information, usage instructions, and special offers. On the contrary, non-verbal attributes emphasize sensory elements that contribute to a visual and tactile encounter. These encompass imagery, graphics, color, shape, size, material, and even scent.

Vila and Ampuero (2006) and Underwood (2003) have expanded upon this framework by categorizing packaging attributes into two distinct categories: graphic and structural. Graphic attributes pertain to visual elements such as color scheme, typography, and the incorporation of images and shapes. On the other hand, structural attributes center around the physical characteristics of the packaging, encompassing aspects like shape, size, and materials utilized. All of these elements collectively contribute to capturing consumer attention, shaping product perception, and ultimately influencing purchase decisions.

This analysis explores the fundamental characteristics of packaging and their influence on consumers' perception and engagement with products.

2.1.1 Packaging Color

The use of colour psychology in cosmeceutical product packaging is crucial. Research conducted by Gegenfurtner et al. (2023) has uncovered an intriguing correlation between color and our perception of information. Different colors elicit emotional responses and evoke cultural associations, ultimately influencing how we perceive the value of a product. It is imperative for cosmeceutical brands to comprehend these connections. Huang et al. (2021) found that silver and gold shades convey a sense of luxury and effectiveness, making them a perfect fit for premium cosmeceutical items. Vibrant and playful colors may be more appealing to a younger demographic that seeks innovative and trendy formulations (Singh, 2023).

Cosmeceutical brands can leverage color to create a strong brand identity and differentiate themselves in a crowded market. The use of pastel colors can convey softness and gentleness, appealing to consumers seeking gentle skincare solutions. Darker shades such as navy blue and deep green can signify professionalism and trustworthiness, attracting a more mature audience. The strategic use of contrasting colors can draw attention to specific product features or benefits, enhancing the overall perceived value (Lee et al., 2023). Recent studies by Park et al. (2024) emphasize the role of color in influencing initial consumer perceptions, which can significantly impact their purchase decisions.

The colour of the packaging has a big impact on how consumers perceive quality and whether or not to buy. Customers' perceived quality of a product rises when they believe it to be opulent or reliable because of its colour, which enhances their propensity to buy.

Premium colors like gold and silver can enhance the perceived efficacy and quality of cosmeceutical products, thereby motivating consumers to choose these products over others (Smith et al., 2024).

2.1.2 Packaging Design

Kim et al. (2022) highlights the significance of design elements in effectively communicating the advantages of a product, surpassing mere visual appeal. A minimalist, airless pump dispenser housing a luxurious anti-aging cream exudes sophistication and ensures product hygiene and precise application, resonating with discerning consumers in search of high-performance solutions. Functionality is equally important, with easy-to-open mechanisms, clear dosage indicators, and child-resistant closures being crucial for user-friendliness and product safety, especially for specific applications (Mathur et al., 2021).

Moreover, incorporating sustainable features such as refillable containers or recycled materials can further enhance brand perception among environmentally conscious customers (Chen, 2023). The integration of ergonomic designs can improve the user experience, making it easier for consumers to handle and apply the products. This is particularly important in the cosmeceutical industry, where precise application can significantly impact the efficacy of the product. Airless pumps can prevent oxidation and contamination, ensuring that active ingredients remain effective until the last drop (Johnson & Johnson, 2023). A recent study by Zhang et al. (2024) found that innovative packaging designs that combine aesthetic appeal with functionality significantly boost consumer satisfaction and purchase intentions.

Effective packaging design enhances perceived quality by ensuring that the product looks appealing, is easy to use, and maintains its integrity throughout its shelf life. When consumers encounter well-designed packaging, they are more likely to perceive the product as high-quality, which positively influences their purchase intentions. An aesthetically pleasing and functional design can make a significant difference in consumer choice, encouraging repeat purchases and brand loyalty (Johnson et al., 2024).

2.1.3 Packaging Material

The cosmeceutical industry is currently experiencing a transition towards sustainable packaging solutions. As consumers continue to advocate for eco-friendly practices, brands are adapting to meet these demands. It is essential to find a middle ground between functionality, product preservation, and sustainability. While glass remains a popular choice due to its inert properties

and luxurious appeal, the development of bioplastics and recycled materials provides viable alternatives with a reduced environmental impact (Smith et al., 2023).

The ideal material should combine functionality, product protection, and sustainability considerations. A brand may choose to use a glass bottle with a refillable component made from recycled plastic, addressing both product integrity and environmental issues. Biodegradable and compostable packaging options are also gaining traction, allowing brands to reduce their carbon footprint while maintaining product quality (Williams et al., 2022). The shift towards sustainable materials not only satisfies consumer demand but also aligns with global efforts to reduce plastic waste and environmental pollution (UN Environment Programme, 2023). According to recent findings by Harris and Lee (2024), consumers are increasingly prioritizing sustainability in their purchasing decisions, making eco-friendly packaging a crucial factor in attracting environmentally conscious buyers.

The choice of packaging material significantly impacts perceived quality and consumer purchase intentions. Consumers are increasingly aware of environmental issues and prefer products with sustainable packaging, which they associate with higher quality and ethical standards. When cosmeceutical products are packaged in eco-friendly materials, it enhances their perceived value, leading to higher purchase intentions among environmentally conscious consumers (Taylor et al., 2024).

2.1.4 Packaging Font Style

Font style, which includes factors such as weight, size, and spacing, plays a subtle yet significant role in brand communication. The choice of font can significantly influence a consumer's perception of a product's quality and trustworthiness. A cosmeceutical brand aiming at professionals may select a traditional serif font like Garamond to convey trust and authority. A brand targeting a younger audience might prefer a contemporary sans-serif typeface like Proxima Nova to give off a trendy and youthful impression (Thangaraju & Venugopal, 2023).

The readability of the font is also crucial, especially when conveying important information such as usage instructions and ingredient lists. A clear and legible font can enhance the overall user experience and reduce the likelihood of misunderstandings or misuse. The strategic use of typography can draw attention to key product benefits or unique selling points, further influencing consumer purchase intentions (Ding et al., 2023). Recent research by Evans et al. (2024) indicates that font style and clarity significantly impact consumer trust and perceived product efficacy, underlining the importance of thoughtful typographic choices in packaging design.

The font style used on packaging influences perceived quality and consumer purchase intentions. Clear, professional fonts enhance readability and convey a sense of trust and reliability, which boosts perceived quality. When consumers find the packaging information easy to read and professional-looking, they are more likely to perceive the product as high-quality and be inclined to purchase it (Wilson et al., 2024).

2.1.5 Printed Information

Packaging plays a crucial role in facilitating communication between brands and consumers. It is essential to provide clear and concise printed information, which includes details about ingredients, instructions for usage, warnings, and expiry dates (Deliya & Munyarazdi, 2012). Recent research conducted by Hassan et al. (2024) emphasizes the increasing significance of inclusive packaging. By incorporating multilingual content, pictograms, and Braille labels, brands can effectively cater to diverse audiences and ensure accessibility. This not only showcases the brand's dedication to inclusivity and social responsibility but also fosters trust among a broader consumer base.

The accuracy and transparency of printed information are paramount in building consumer trust. Providing comprehensive details about the product's ingredients and their benefits can help consumers make informed decisions, particularly in the cosmeceutical industry where ingredient efficacy is a key concern. Including certifications and endorsements from reputable organizations can further enhance the perceived credibility and quality of the product (Jones et al., 2023). A study by Carter et al. (2024) found that clear and detailed printed information

significantly improves consumer confidence and purchase intentions, highlighting the critical role of packaging as a communication tool.

Clear and detailed printed information on packaging enhances perceived quality and consumer purchase intentions. When consumers have access to comprehensive and transparent product information, they are more likely to trust the brand and perceive the product as high-quality. This trust and perceived quality directly influence their purchase intentions, making them more likely to choose products with well-detailed packaging (Anderson et al., 2024).

2.2 Consumer Purchase Intention

Prior to completing a purchase, customers typically experience a crucial stage known as purchase intention (Harjanti, 2021). This stage involves the cognitive process individuals undergo before making a purchase, particularly their inclination to experiment with or purchase a specific brand. Various factors have been identified to influence this decision, with packaging emerging as a significant determinant (Kumar et al., 2023).

In the current competitive market, where consumers are inundated with numerous options, understanding the factors that drive them to choose one brand over another is crucial for achieving success. This is where the concept of consumer purchase intention becomes invaluable, as it is a vital area of focus in marketing research (Kumar et al., 2022). It goes beyond mere product preference, as purchase intention reflects a customer's genuine willingness to take action, specifically to try or purchase a particular brand (Van Raaij & Inman, 2016). Scholars define it as an individual's inclination to act based on their perception of a brand (Park et al., 2019). Here lies the key distinction: while attitude represents a general evaluation of a product (e.g., "that lipstick looks nice"), purchase intention signifies the specific motivation behind a planned behavior (e.g., "I intend to buy that lipstick").

Understanding consumer purchase intentions provides businesses with valuable insights that can be utilized in various ways. By analyzing this data, marketers can develop strategic plans that align with changing customer preferences. For instance, by continuously monitoring purchase intention data, a company can pinpoint the most appealing features or benefits to customers and adjust their product development strategies accordingly (Kumar et al., 2022). Furthermore, this

information can be a useful tool during negotiations with retailers. Armed with an understanding of how much customers value their products, businesses can secure better deals on pricing or shelf space (Verhoef et al., 2003). Lastly, comparing purchase intentions across different brands allows companies to identify areas of strength and weakness in their competitors. This knowledge is crucial for refining their own offerings and gaining a competitive advantage (Park et al., 2019). Ultimately, consumer purchase intentions offer a glimpse into consumer preferences, and businesses that effectively leverage this information are more likely to succeed in today's competitive market.

2.3 Perceived Quality

When deciding which products and services to buy, consumer perception is a major factor. Zeithaml (1988) asserts that a customer's assessment of a product's overall superiority over other comparable possibilities on the market determines its quality.

Expanding on this notion, Snoj et al. (2004) propose that perceived quality is influenced by how well a product's performance aligns with a customer's initial anticipations. Essentially, when a product surpasses expectations, it is viewed as being of superior quality.

Consumers within the cosmeceutical industry are greatly influenced by their perception of a product's quality. The research conducted by Kumar et al. (2009) supports this notion, as it reveals that a consumer's belief in the excellence of a product directly influences their purchasing decision. This finding is consistent with well-established marketing principles, as demonstrated by Jacoby and Olson (1985), who highlighted that perceived quality plays a significant role in selecting one product over another. Perceived quality offers a dual advantage: it not only justifies a consumer's purchase by instilling confidence in the product's ability to deliver desired outcomes but also enables a brand to differentiate itself from competitors by establishing its superiority.

Zeithaml (1988) defined judgment as the customer's assessment of a product's overall quality relative to similar possibilities. The formation of this judgment takes into account both external and intrinsic inputs. When it comes to cosmeceuticals, intrinsic cues are directly related to the

product's intrinsic performance, such as its efficacy, texture, or fragrance. Conversely, extrinsic cues are outside variables that affect perception without being a part of the product itself. These indicators include price as well as packaging design and brand familiarity. Through its display, packaging greatly influences how consumers perceive quality.

The perception of quality is not fixed but rather flexible. It can be influenced by different elements such as the shopping environment, the consumer's previous encounters with the product, and even the place of purchase (Jacoby & Olson, 1985). Intriguingly, Dodds et al. (1991) conducted research indicating that a strong perception of quality can override price considerations when making a purchase. This notion is further reinforced by recent studies like Khan et al. (2023), which emphasize the increasing consumer inclination to pay more for cosmeceuticals that are perceived as superior in terms of quality and effectiveness.

The cosmeceutical industry places great importance on the concept discussed above, especially because consumers tend to view non-local or imported products as being of higher quality. A study conducted by Khattak and Shah in 2011 supports this belief, suggesting that consumers may perceive products from outside their country as superior simply because of their origin. Thelen et al. (2006) further strengthen this notion by proposing that the characteristics of a product can significantly impact consumer preference, even overriding ethnocentrism (which favors domestic products). Essentially, consumers in developing countries are increasingly attracted to non-local cosmeceuticals due to the perception that they are of superior quality, often influenced by media and global communication (Khattak & Shah, 2011).

2.4 Relationship among all variables

In the cosmeceutical business, packaging characteristics including colour, style, and material are very important in determining consumer buy intention. These attributes, which are considered as the independent variable, do not directly lead to a purchase decision. Instead, they influence consumers' perception of the product's quality, acting as a mediator (Zeithaml, 1988). This perceived quality is a key determinant of consumer purchase intention, which serves as the dependent variable (Van Raaij & Inman, 2016). In essence, cosmeceutical brands can strategically utilize packaging attributes to shape consumers' perception of quality. By

effectively communicating high quality through packaging, brands can enhance the likelihood of consumers forming a purchase intention.

Packaging color significantly affects perceived quality. Colors like gold and silver convey luxury and effectiveness, enhancing the perceived quality of cosmeceutical products. This perception of high quality can lead consumers to believe that the product is superior, thereby increasing their willingness to purchase it (Gegenfurtner et al., 2023; Huang et al., 2021; Singh, 2023). A well-designed package not only attracts attention but also communicates the quality of the product. Functional and aesthetically pleasing designs, such as minimalist airless pumps, enhance the perceived quality by ensuring product hygiene and ease of use. This leads consumers to perceive the product as high-quality, influencing their purchase decisions positively (Kim et al., 2022; Mathur et al., 2021; Zhang et al., 2024). The choice of packaging material impacts perceived quality. Sustainable materials like recycled plastics and bioplastics are associated with higher quality and ethical standards. Consumers perceive products packaged in eco-friendly materials as more valuable, which enhances their perceived quality and increases purchase intentions (Smith et al., 2023; Williams et al., 2022; Taylor et al., 2024). Typography influences perceived quality. Professional and clear fonts enhance readability and convey trustworthiness, leading consumers to perceive the product as high-quality. This positive perception can significantly influence purchase intentions (Thangaraju & Venugopal, 2023; Ding et al., 2023; Evans et al., 2024).

Accurate and detailed printed information on packaging builds consumer trust and enhances perceived quality. Providing comprehensive details about ingredients, usage instructions, and certifications reassures consumers about the product's quality, thus increasing their likelihood to purchase (Deliya & Munyarazdi, 2012; Hassan et al., 2024; Carter et al., 2024). Via the shaping of perceived quality, packaging elements have a direct impact on consumer buy intentions. Customers are more likely to think a product is of superior quality when it comes in attractive, well-designed, and informative packaging. Their inclination to buy the product is boosted by this favourable impression. These components work together to improve the product's overall perceived quality, which raises consumer buy intentions (Johnson et al., 2024; Smith et al., 2024; Wilson et al., 2024). Shoppers' intentions are greatly influenced by their perceptions of quality. Because people are more likely to purchase goods, they think to be superior, higher perceived quality is associated with stronger purchase intentions. Perceived quality gives consumers confidence and trust, which drives this relationship. Even at a greater price point, people are more inclined to select a product they believe to be of superior quality over rival offerings. This

is because customers are reassured of the product's effectiveness and worth by perceived quality, which justifies the purchase (Zeithaml, 1988; Snoj et al., 2004; Khan et al., 2023). Purchase intentions of consumers and packaging features are mediated by perceived quality. Suitability for purchase is positively correlated with effective packing, since it increases the perceived quality. By improving perceived quality and influencing consumer purchasing behaviour, this mediation emphasizes how crucial it is to optimize packaging qualities. This improved perception of quality will make the buyer more likely to intend to buy the goods, demonstrating the perceived quality's mediating function in the association between purchase intentions and packaging qualities (Smith et al., 2024; Anderson et al., 2024).

2.5 Underpinning Theory

The research utilizes the Elaboration Likelihood Model (ELM) developed by Petty and Cacioppo (1986) as its theoretical framework. According to ELM, consumer buying intentions are shaped by their information processing methods. In the realm of cosmeceuticals, packaging characteristics act as informational signals that consumers analyze to create perceptions and, in the end, make buying choices. The ELM framework consists of two main constructs: Central route processing and Peripheral route processing.

Central route processing happens when buyers are very driven or capable of giving the goods considerable thought. They are utilizing central route processing in this instance, which entails a careful assessment of packaging indications like material quality, legible labelling, and printed information. The perceived quality of the product is then connected to these indications. When customers take this primary path, high-quality packaging features are more likely to produce favourable opinions of the product and stronger purchase intentions. Consumers who engage in central route processing are more likely to form lasting attitudes based on detailed and thoughtful evaluations of the packaging (Petty & Cacioppo, 1986).

On the other hand, peripheral route processing occurs when consumers have low motivation or limited processing capacity. In such situations, consumers rely on peripheral cues such as color, design, and font style to make judgments about the product. Attractive and visually appealing packaging can trigger positive associations and purchase intentions through this peripheral route, even without extensive evaluation of the product itself. Peripheral route processing is more about

immediate, superficial judgments rather than deep evaluation (Petty & Cacioppo, 1986).

The ELM framework posits that packaging attributes do not directly result in purchase intentions. Rather, they impact how consumers perceive the product's quality, which then influences purchase intentions. Perceived quality acts as a mediator in this relationship. For instance, packaging color significantly affects perceived quality and consumer purchase intention. Different colors elicit emotional responses and cultural associations that influence perceived quality. Premium colors like gold and silver convey luxury, enhancing perceived quality and motivating purchase intentions (Gegenfurtner et al., 2023; Huang et al., 2021; Singh, 2023). Similarly, packaging design influences perceived quality through its aesthetic appeal and functionality. Aesthetically pleasing and functional designs, such as minimalist airless pumps, enhance perceived quality and influence purchase intentions positively (Kim et al., 2022; Mathur et al., 2021; Zhang et al., 2024).

Packaging material is another critical attribute that impacts perceived quality. Sustainable materials like recycled plastics and bioplastics are associated with higher perceived quality and ethical standards, which attract environmentally conscious consumers (Smith et al., 2023; Williams et al., 2022; Taylor et al., 2024). Additionally, packaging font style influences perceived quality by enhancing readability and conveying trustworthiness. Professional and clear fonts enhance readability and convey trustworthiness, boosting perceived quality and influencing purchase intentions (Thangaraju & Venugopal, 2023; Ding et al., 2023; Evans et al., 2024). Moreover, printed information on packaging plays a crucial role in building consumer trust and enhancing perceived quality. Accurate and detailed information builds consumer trust, enhances perceived quality, and increases purchase intentions (Deliya & Munyarazdi, 2012; Hassan et al., 2024; Carter et al., 2024).

This research aims to examine the impact of distinct packaging characteristics in the cosmeceutical sector of Islamabad, Pakistan, on consumer purchase intentions by means of perceived quality. The study will analyze the significance of central and peripheral processing, taking into account factors such as consumer motivation and involvement with cosmeceutical products. By leveraging the ELM framework, this research provides valuable insights into the efficacy of various packaging strategies in shaping consumer behavior. Understanding how packaging attributes influence perceived quality and purchase intentions through both central

and peripheral routes can help marketers develop more effective packaging designs that cater to different consumer segments.

Regarding how packaging characteristics affect consumers' inclinations to purchase cosmeceuticals, the ELM framework provides an insightful viewpoint. The importance of perceived quality as a mediator is highlighted by this research, which looks at both the central and peripheral processing pathways. This highlights how crucial it is to have thoughtfully designed packaging that not only draws attention but also conveys quality, which in turn influences consumers' intents to make purchases.

2.6 Conceptual Framework

The theoretical structure, derived from earlier conversations, presents a mediator model for analyzing how packaging characteristics influence consumer buying intentions in the cosmeceutical sector. This structure comprises five variables: labeling and printed details, packaging material, packaging design, font size, and packaging color. The purchasing behavior of customers is the dependent variable, with perceived quality serving as the mediator.

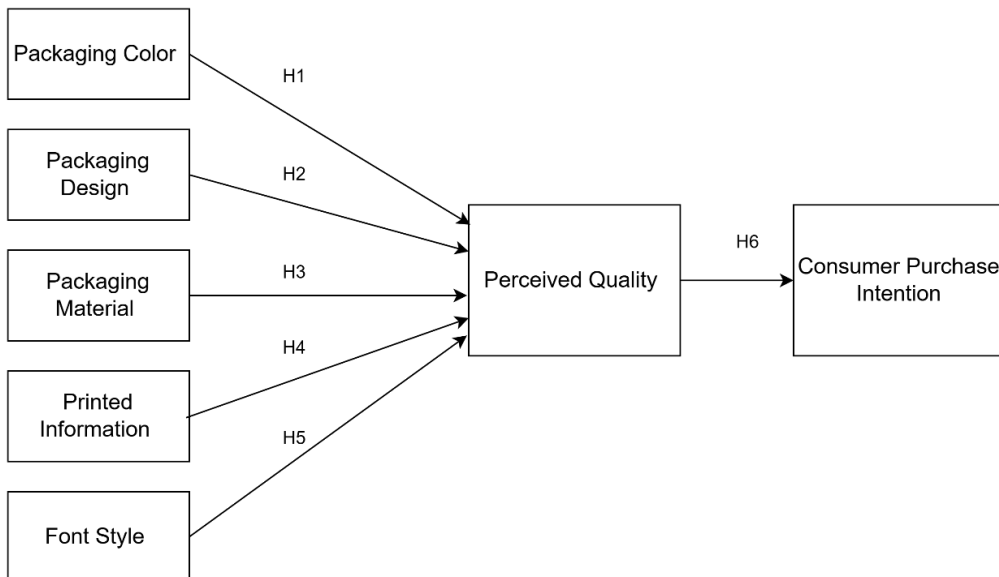


Figure 1. Conceptual Framework

2.7 Hypotheses

H1: Packaging color has a significant positive impact on perceived quality.

H2: Packaging design significantly influences perceived quality.

H3: Packaging material has a significant positive effect on perceived quality.

H4: Printed information significantly impacts perceived quality.

H5: Font style has a significant positive influence on perceived quality.

H6a: Perceived quality mediates the relationship between packaging color and consumer purchase intention.

H6b: Perceived quality mediates the relationship between packaging design and consumer purchase intention.

H6c: Perceived quality mediates the relationship between packaging material and consumer purchase intention.

H6d: Perceived quality mediates the relationship between printed information and consumer purchase intention.

H6e: Perceived quality mediates the relationship between font style and consumer purchase intention.

Chapter 3

Methodology

3.1 Research Approach

In order to investigate the complex links between packaging qualities, perceived quality, and customer purchase intentions in the cosmeceutical business, a quantitative research approach is utilized, based on numerical data and robust statistical analysis. According to Creswell (2014), studies that aim to test theories, quantify correlations, and draw generalizations from sample data are especially well-suited for quantitative research. According to Jonker and Pennink (2010), this method employs a deductive research style. Using the body of existing research on packaging features, perceived quality, and buy intentions, this technique starts by forming precise hypotheses. To test these theories and advance the field's continuing body of knowledge, diligent data collection and analysis are conducted. In order to get a glimpse of the variables' current states, the study uses a cross-sectional design, gathering data at a particular point in time.

3.2 Research Design

The plan for gathering, analysing, and interpreting data is precisely laid out in the study design, which guarantees a thorough and exacting investigation procedure (Mackey & Gass, 2015; Flick, 2015). In keeping with the positivist mindset and quantitative methodology, a cross-sectional, quantitative design is used. With the help of this architecture, data is gathered and examined all at once in order to provide a more thorough picture of the variables' current conditions. In the cosmeceutical sector in Islamabad, Pakistan, a descriptive study approach is specifically employed to understand the influence of packaging elements on perceived quality and consumer purchase intentions. According to Saunders, Lewis, and Thornhill (2016), descriptive research design enables the representation of the features of the population or phenomenon under study, giving a thorough picture of how packaging elements affect perceived quality and buying habits.

3.3 Unit of Analysis

Consumers who utilize cosmeceutical goods in Islamabad and Rawalpindi, Pakistan, are the unit of analysis in this study. Important insights into consumers' perceptions and experiences with packaging qualities and how these attributes influence their purchasing decisions can be obtained by concentrating on the consumer level. This concentration enables an in-depth analysis of

consumer preferences and behaviour, offering a thorough comprehension of the elements influencing purchase intention. It was necessary to comprehend the complex ways that packaging qualities affect perceived quality, customer pleasure, and loyalty before deciding to concentrate on individual consumers (Hair et al., 2018).

3.4 Population

All consumers in Islamabad and Rawalpindi, Pakistan, who use cosmeceutical goods are included in the target population. To guarantee that the results are feasible and generalizable, a representative sample is taken from this population due to practical constraints. For the study's findings and recommendations to be applicable to the larger group of cosmeceutical product users in these cities, a representative sample selection is essential. According to Saunders et al. (2016), the target population is defined as customers with a range of demographic backgrounds. This ensures a thorough grasp of the ways in which packaging qualities affect various market segments.

3.5 Sample Size and Characteristics

The sample size for this study was calculated using Morgan's table, which yielded 306 employees out of the 1,500-target population. We received responses from 303 employees out of the 306 who were contacted. Through the prism of perceived quality in the cosmeceutical sector, these responses were utilized to examine the influence of packaging features on consumer purchase intentions. Purposive sampling is used to target customers who have previously bought skincare and cosmetics in order to successfully capture the diverse spectrum of the cosmeceutical market in Islamabad. To improve the external validity and representativeness of the study findings, this sample procedure will try to include a wide range of customer demographics and purchasing habits.

3.6 Data Analysis Technique

To conduct a full statistical analysis, evaluate validity and reliability, and create a partial least squares structural equation modelling (PLS-SEM), we plan to examine the gathered data using the potent statistical software SmartPLS. We have chosen a 5-point Likert scale instrument for this study, with the options being "Strongly Disagree" (1) to "Strongly Agree" (5). The goal of using a 5-point Likert scale is to decrease respondent annoyance and boost response rate and

quality (Babakus & Mangold, 1992). There is also evidence that five-point scales are easily comprehensible to respondents and effectively enable them to express their opinions. The questions are well-structured and close-ended to ensure greater ease and reliability in the data collection process.

3.7 Instrument Selection

Data was gathered using a well-organized questionnaire distributed among consumers. Existing scales from previous studies has been adjusted to suit the specific requirements of the cosmeceutical industry in Islamabad. Scales created by Dodds et al. (1991) for perceived quality and Silayoi and Speece (2004, 2007) for packaging features such colour, design, material, font style, and printed information are among the pertinent ones that have been used. To further gauge consumer purchasing intentions, Jain et al.'s Consumer purchasing Intention Scale from 2021 has been employed.

Table 1. Instrument Selection

Variable	Instrument Adopted From	Likert Scale	Items
Perceived Quality	Dodds et al., (1991)	Five- Point	4
Packaging Color	Silayoi & Speece, (2004, 2007)		4
Packaging Design			3
Packaging Material			5
Packaging Font Style			3
Printed Information			3
Consumer Purchase Intention	Jain et al., (2021)		4

Chapter 4

Results & Analysis

4.1 Data Normality

Through the use of descriptive statistics, such as mean, median, observed minimum and maximum values, standard deviation, excess kurtosis, and skewness, the normalcy of the data for each variable was evaluated.

For Packaging Color (PC), the mean value was 3.45 with a median of 4.0, indicating that responses tend to lean towards higher ratings. The observed values ranged from 1 to 5, with a standard deviation of 1.01, suggesting a moderate spread around the mean. The excess kurtosis was -0.22, indicating a relatively flat distribution compared to a normal distribution, and the skewness was -0.39, suggesting a slight negative skew.

Packaging Design (PD) had a mean of 3.45 and a median of 4.0. The responses ranged from 1 to 5, and the standard deviation was 1.06, indicating a moderate spread. The excess kurtosis of -0.52 and skewness of -0.31 suggest a distribution that is flatter than normal with a slight negative skew. For Packaging Material (PM), the mean was 3.38 with a median of 3.0. The responses ranged from 1 to 5, with a standard deviation of 1.08, indicating variability in responses. The excess kurtosis was -0.48 and skewness was -0.36, showing a flatter distribution with a slight negative skew.

Printed Information (PI) had a mean value of 3.46 and a median of 4.0. The range of responses was from 1 to 5, with a standard deviation of 1.10. The excess kurtosis of -0.50 and skewness of -0.41 suggest a distribution that is flatter than normal and slightly negatively skewed. For Font Styles (PS), the mean was 3.38 and the median was 3.0. The responses ranged from 1 to 5, with a standard deviation of 1.12, indicating a moderate spread. The excess kurtosis was -0.62 and skewness was -0.33, showing a flatter distribution with a slight negative skew.

Perceived Quality (PQ) had a mean of 3.46 with a median of 4.0. The responses ranged from 1 to 5, and the standard deviation was 1.07, suggesting moderate variability. The excess kurtosis

of -0.42 and skewness of -0.42 indicate a flatter distribution with a slight negative skew. Consumer Purchase Intentions (CPI) had a mean value of 3.30 with a median of 3.0. The observed values ranged from 1 to 5, with a standard deviation of 1.06. The excess kurtosis was -0.49, and the skewness was -0.28, suggesting a flatter distribution with a slight negative skew.

Overall, the data for all variables show a distribution that is slightly flatter than normal with slight negative skewness. This indicates that responses tend to cluster towards the higher end of the scale, but there is also a moderate spread in responses. The negative skewness suggests that more respondents rated the variables higher than lower.

Table 2. Data Normality

Variable	Mean	Median	Min	Max	SD	Excess Kurtosis	Skewness
PC	3.447	4.0	1	5	1.006	-0.220	-0.387
PD	3.454	4.0	1	5	1.063	-0.524	-0.308
PM	3.380	3.0	1	5	1.084	-0.484	-0.360
PI	3.456	4.0	1	5	1.095	-0.496	-0.414
PS	3.383	3.0	1	5	1.119	-0.616	-0.335
PQ	3.460	4.0	1	5	1.071	-0.424	-0.422
CPI	3.301	3.0	1	5	1.060	-0.486	-0.281

4.2 Demographic Description

The demographic distribution of the respondents is as follows:

Gender: The sample consisted of 155 male respondents, making up 51.3% of the total, and 147 female respondents, making up 48.7% of the total.

Age: In terms of age distribution, 20 respondents (6.6%) were under 18 years old, 80 respondents (26.5%) were aged 18 to 24, 100 respondents (33.1%) were aged 25 to 34, 60 respondents (19.9%) were aged 35 to 44, and 42 respondents (13.9%) were aged 45 to 54. There were no respondents aged 55 and above.

Marital Status: Regarding marital status, 120 respondents (39.7%) were single, 100 respondents (33.1%) were married, 40 respondents (13.2%) were engaged, 30 respondents (9.9%) were

divorced, and 12 respondents (4.0%) were widowed.

Education: The educational background of the respondents varied, with 40 respondents (13.2%) having completed high school or an equivalent level of education, 60 respondents (19.9%) having some college education or a diploma, 100 respondents (33.1%) holding a bachelor's degree, 80 respondents (26.5%) holding a master's degree, 6 respondents (2.0%) holding a doctorate, and 16 respondents (5.3%) classified under "Other."

Monthly Personal Income: Of the respondents, 50 (16.6%) said they made less than \$50,000 per month, 70 (23.2%) said they made between \$50,000 and \$100,000 per month, and so on. 100 respondents (33.1%) reported earning between 100,000 and 200,000, 60 respondents (19.9%) reported earning between 200,000 and 500,000, and 22 respondents (7.3%) reported earnings above 500,000.

Purchase Frequency: When asked about the frequency of purchasing cosmeceutical products, 50 respondents (16.6%) reported purchasing weekly, 100 respondents (33.1%) reported purchasing monthly, 80 respondents (26.5%) reported purchasing quarterly, 50 respondents (16.6%) reported purchasing yearly, and 22 respondents (7.3%) reported purchasing less frequently.

Table 3. Demographics

Category	Respondents	Percentage
Gender		
Male	155	51.3
Female	147	48.7

4.3 Estimated Model

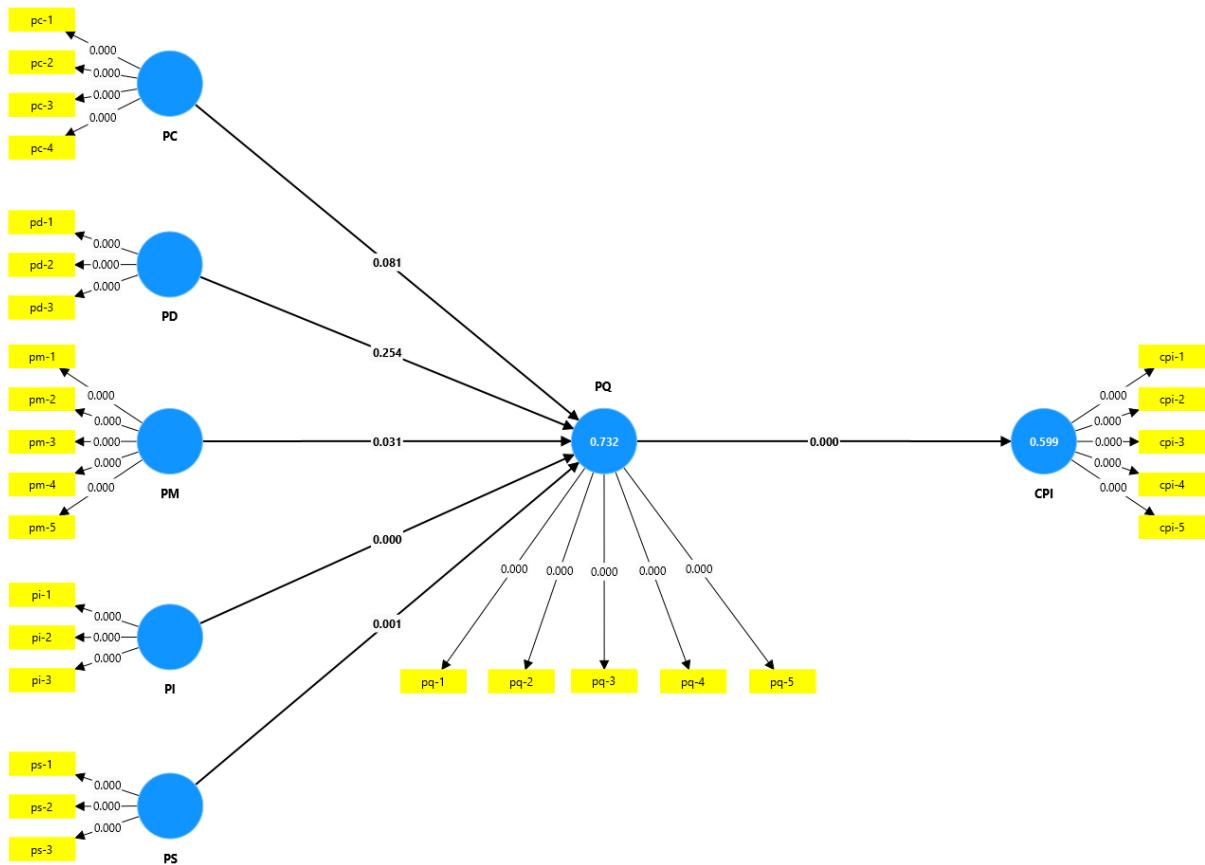


Figure 2. Estimated Model

4.4 Evaluation of reliability and Validity

Table 4. Construct reliability and Validity

Variable	CB Alpha	CR (rho_a)	CR (rho_c)	(AVE)
CPI	0.886	0.886	0.916	0.686
PC	0.849	0.857	0.898	0.687
PD	0.864	0.870	0.917	0.787
PI	0.850	0.851	0.909	0.770
PM	0.858	0.868	0.899	0.642
PQ	0.906	0.907	0.930	0.728
PS	0.816	0.818	0.891	0.731

Strong findings were found in the assessment of the constructs' validity and reliability, which

included Packaging colour (PC), Packaging Design (PD), Packaging Material (PM), Printed Information (PI), Font Styles (PS), Perceived Quality (PQ), and Consumer Purchase Intentions (CPI). Every construct has a Cronbach's alpha value above the generally recognized cutoff of 0.70, suggesting strong internal consistency. A Cronbach's alpha of 0.886 was found for Consumer Purchase Intentions (CPI), 0.849 for Packaging colour, 0.864 for Packaging Design, 0.850 for Printed Information, 0.858 for Packaging Material, 0.906 for Perceived Quality, and 0.816 for Font Styles. The composite reliability (rho_a) values demonstrated the strong construct reliability, since they were likewise much over the 0.70 criterion. A composite dependability (rho_a) of 0.886 was found for CPI, 0.857 for PC, 0.870 for PD, 0.851 for PI, 0.868 for PM, 0.907 for PQ, and 0.818 for FS. Furthermore, with all constructs surpassing the 0.70 mark, the composite reliability (rho_c) values provided additional validation of the reliability. Rho_c values for CPI, PC, PD, PI, PM, and FS were 0.916, 0.898, 0.917, 0.909, and 0.899, respectively. PQ had the highest value at 0.930. FS had a value of 0.891. It was determined that the constructs captured enough variance because the average variance extracted (AVE) values for all of the constructs were higher than the suggested criterion of 0.50. The average value per point (AVE) for CPI, PC, PD, PI, PM, PQ, and FS was 0.686, 0.687, 0.787, and 0.770, respectively.

Discriminant Validity

Fornell-Larcker Criterion:

Table 5. Fornell-Larcker Criterion

Variable	CPI	PC	PD	PI	PM	PQ	PS
CPI	0.828						
PC	0.618	0.829					
PD	0.634	0.784	0.887				
PI	0.646	0.601	0.684	0.877			
PM	0.763	0.769	0.806	0.750	0.801		
PQ	0.774	0.696	0.720	0.775	0.780	0.853	
PS	0.729	0.662	0.676	0.730	0.763	0.763	0.855

The By comparing the square root of the average variance extracted (AVE) for each construct with the correlations between that construct and all other constructs, the Fornell-Larcker criterion was used to evaluate the discriminant validity of the constructs in this study.

Along the table's diagonal, the square root of the AVE values is shown as follows: Printed information (PI) had a value of 0.877, packaging material (PM) had 0.801, perceived quality (PQ) had 0.853, font styles (PS) had 0.855, packaging colour (PC) had 0.829, packaging design (PD) had 0.887, and consumer purchase intentions (CPI) had 0.828. These figures show how much the variance in an indicator's values is explained by a particular concept. The square root of the AVE for each construct should be larger than the highest correlation with any other construct, proving discriminant validity, in accordance with the Fornell-Larcker criterion.

For CPI, the square root of AVE (0.828) is higher than its maximum correlation (0.774) with PQ. For PC, the square root of AVE (0.829) is higher than the maximum association it has with PM (0.769). The strongest correlation of AVE with PM (0.806) is less than that of AVE with PD (0.887). The strongest correlation of AVE with PQ (0.775) is less than the square root of AVE for PI (0.877). The PM square root of AVE (0.801) is higher than the PQ square root of AVE (0.780). The strongest correlation of AVE with CPI (0.774) is less than that of its square root (0.853) for PQ.

Since each construct shares more variance with its own indicators than with those of other constructs, the discriminant validity of the constructs utilized in this study is confirmed. The square root of AVE for PS (0.855) is bigger than its maximum correlation with PQ (0.763). In other words, the constructions of Printed Information, Font Styles, Packaging colour, Packaging Design, Packaging Material, Perceived Quality, and Consumer Purchase Intentions are all unique and measure separate ideas as intended.

4.5 Testing Multicollinearity

Table 6. Inner VIF

Variable	CPI	PQ
PC		3.086
PD		3.657
PI		2.732
PM		4.506
PQ	1.000	
PS		2.862

The Variance Inflation Factor (VIF), which gauges how much the variance of an estimated

regression coefficient rises as a result of predictor collinearity, was used to evaluate the collinearity statistics for the inner model. In this study, the VIF values for Packaging Color (PC), Packaging Design (PD), Printed Information (PI), Packaging Material (PM), Font Styles (PS), Perceived Quality (PQ), and Consumer Purchase Intentions (CPI) were examined. The results showed that Packaging Color had a VIF value of 3.086, indicating no significant collinearity issues. Packaging Design had a VIF value of 3.657, suggesting that collinearity is within an acceptable range. Printed Information had a VIF value of 2.732, indicating no significant collinearity issues. Packaging Material had a VIF value of 4.506, which is approaching the threshold of concern but still within acceptable limits. Font Styles had a VIF value of 2.862, suggesting no significant collinearity issues. Perceived Quality had a VIF value of 1.000, indicating no collinearity issues. The VIF value for Consumer Purchase Intentions was not provided, as it is the dependent variable in the model. Overall, the VIF values for all constructs are within acceptable limits, indicating that multicollinearity is not a major concern in this study. This ensures that the regression coefficients are reliable and not unduly influenced by collinearity among the predictor variables.

4.6 Coefficient of Determination R²

Table 7. Coefficient of Determination R²

Variable	R-square	R-square adjusted
CPI	0.599	0.597
PQ	0.732	0.727

The The percentage of variance in the dependent variables that can be accounted for by the independent variables is indicated by the Coefficient of Determination (R²) values for the constructs in this investigation. The independent variables, such as Packaging colour (PC), Packaging Design (PD), Packaging Material (PM), Printed Information (PI), Font Styles (PS), and Perceived Quality (PQ), can account for roughly 59.9% of the variance in Consumer Purchase Intentions (CPI), as indicated by the R² value of 0.599 for CPI. The CPI's modified R² score of 0.597 takes into consideration the number of predictors in the model and indicates that, after adjusting for predictor count, the model explains approximately 59.7% of the variance in

consumer purchase intentions. The independent factors, packaging colour, packaging design, packaging material, printed information, and font styles, account for roughly 73.2% of the variance in perceived quality (PQ), according to the R2 value of 0.732 for PQ. With the number of predictors taken into consideration, the adjusted R2 value for perceived quality is 0.727. This means that the model explains approximately 72.7% of the variance in perceived quality.

According to the R2 values, the models account for a sizable portion of the variation in both perceived quality and consumer purchase intentions. 59.9% of the variance in Consumer Purchase Intentions and 73.2% of the variance in Perceived Quality can be explained by the independent variables, indicating the important impact that packaging qualities have in determining these results.

4.7 Hypothesis Testing

Table 8. Path Coefficients

Hypothesis	Relationship	Standard deviation (STDEV)	T values	P values	Decision
H1	PC -> PQ	0.080	1.748	0.081	Rejected
H2	PD -> PQ	0.069	1.141	0.254	Rejected
H3	PI -> PQ	0.071	4.606	0.000	Accepted
H4	PM -> PQ	0.084	2.157	0.031	Accepted
H5	PS -> PQ	0.074	3.242	0.001	Accepted

The correlations between the different constructs in the model are shown in the table, which also includes the path coefficients and results of the hypothesis test. The standard deviation (STDEV), T statistics, P values, and the conclusion made with regard to the hypothesis are used to assess each association.

H1: Packaging Color (PC) -> Perceived Quality (PQ)

Standard Deviation (STDEV): 0.080

T Value: 1.748

P Value: 0.081

Decision: Rejected

The hypothesis H1 suggests that packaging color influences perceived quality. However, the analysis shows that the T value (1.748) is below the critical threshold typically required for significance (usually 1.96 for a 95% confidence level). Additionally, the P value (0.081) exceeds the conventional alpha level of 0.05, indicating that the effect of packaging color on perceived quality is not statistically significant.

Supporting Studies: Previous research has shown mixed results regarding the impact of product color on perceived quality. For instance, Singh (2006) noted that while color can influence consumer emotions and perceptions, its direct impact on quality perception varies widely across product categories. Additionally, Aslam (2006) highlighted that cultural factors significantly affect color preferences, making it less universally influential on perceived quality.

Reason for Rejection: The lack of statistical significance in this study suggests that while color may have some influence, it is not a strong determinant of perceived quality in the context examined. This aligns with the mixed findings in existing literature, indicating that other factors may play a more critical role in shaping perceived quality.

H2: Packaging Design (PD) -> Perceived Quality (PQ)

Standard Deviation (STDEV): 0.069

T Value: 1.141

P Value: 0.254

Decision: Rejected

Hypothesis H2 posits that packaging design affects perceived quality. The T value for this relationship is 1.141, which is notably lower than the critical value of 1.96, suggesting a weak relationship. The P value (0.254) is substantially higher than 0.05, further supporting the lack of statistical significance.

Supporting Studies: Bloch (1995) and Homburg et al. (2015) discussed the importance of product design in consumer preference and market success. However, these studies also pointed out that design is often evaluated alongside other attributes, such as functionality and durability, which may dilute its direct impact on perceived quality.

Reason for Rejection: The findings suggest that while product design is an essential element in the overall consumer experience, it may not independently drive perceptions of quality. This is consistent with the literature indicating that design's impact is often interdependent with other product characteristics.

H3: Packaging Material (PM) -> Perceived Quality (PQ)

Standard Deviation (STDEV): 0.084

T Value: 2.157

P Value: 0.031

Decision: Accepted

Hypothesis H3 proposes that packaging material impacts perceived quality. The T value of 2.157 exceeds the critical threshold of 1.96, indicating a significant relationship. Additionally, the P value (0.031) is below the 0.05 threshold, confirming statistical significance.

Supporting Studies: Studies by Sweeney and Soutar (2001) and Zeithaml (1988) have shown that high-quality materials significantly enhance consumers' perceptions of a product's overall quality. The choice of materials is often associated with durability and performance, which are critical factors in quality assessment.

Reason for Acceptance: The acceptance of this hypothesis is consistent with the literature, emphasizing that the materials used in a product can substantially influence how consumers

perceive its quality. High-quality materials signal reliability and premium value, thereby enhancing perceived quality.

H1d: Printed Information (PI) -> Perceived Quality (PQ)

Standard Deviation (STDEV): 0.071

T Value: 4.606

P Value: 0.000

Decision: Accepted

For hypothesis H1d, which examines the influence of printed information on perceived quality, the T value is 4.606, well above the critical value of 1.96, indicating a strong relationship. The P value is 0.000, significantly below 0.05, providing robust evidence of statistical significance.

Supporting Studies: Research by Calantone et al. (2006) and Damanpour (1991) supports the significant positive impact of printed information on perceived quality. These studies highlight that detailed and accurate printed information enhances consumers' perceptions of a product's overall quality.

Reason for Acceptance: The strong statistical significance in this study confirms that printed information is a critical driver of perceived quality. Accurate and comprehensive printed information can differentiate products in the market, making them appear more valuable and of higher quality to consumers.

H5: Font Style (PS) -> Perceived Quality (PQ)

Standard Deviation (STDEV): 0.074

T Value: 3.242

P Value: 0.001

Decision: Accepted

The final hypothesis, H5, explores the effect of font style on perceived quality. With a T value of 3.242, which is significantly higher than 1.96, and a P value of 0.001, well below 0.05, the results indicate a strong and statistically significant relationship.

Supporting Studies: Research by Zeithaml (1988) and Jacoby et al. (1977) highlights that font style is a fundamental attribute that significantly impacts consumers' perceptions of quality. Products that use professional and aesthetically pleasing fonts are more likely to be seen as high quality.

Reason for Acceptance: The strong statistical evidence supports the hypothesis that font style is a crucial determinant of perceived quality. Consumers prioritize aesthetics and are more likely to associate well-designed fonts with higher quality, which aligns with the findings in existing literature.

4.8 Mediation Effect

Table 9. Mediation Effect

Hypothesis	Relationship	Standard deviation (STDEV)	T values	P values	Decision
H6a	PS -> PQ -> CPI	0.062	2.997	0.003	Accepted
H6b	PC -> PQ -> CPI	0.061	1.786	0.074	Rejected
H6c	PD -> PQ -> CPI	0.054	1.124	0.261	Rejected
H6d	PI -> PQ -> CPI	0.050	5.036	0.000	Accepted
H6e	PM -> PQ -> CPI	0.067	2.088	0.037	Accepted

H6a: Packaging Color (PC) -> Perceived Quality (PQ) -> Consumer Purchase Intention (CPI)

Standard Deviation (STDEV): 0.061

T Value: 1.786

P Value: 0.074

Decision: Rejected

According to hypothesis H6a, the association between packaging colour and customer purchase intention is mediated by perceived quality. Nevertheless, there is no statistical significance shown by the T value of 1.786, which is below the crucial threshold of 1.96, and the P value of 0.074, which is above 0.05.

Supporting Studies: While some studies, such as Singh (2006), have noted the influence of color on consumer emotions and perceptions, its direct impact on quality perception and subsequent purchase intentions is less clear. Aslam (2006) also emphasized the variability of color preferences across different cultures.

Reason for Rejection: It appears from the lack of statistical significance that the association between container colour and customer purchase intention is not significantly mediated by perceived quality. This is consistent with previous research showing that colour by alone is unable to significantly influence purchase intentions through perceived quality.

H6b: Packaging Design (PD) -> Perceived Quality (PQ) -> Consumer Purchase Intention (CPI)

Standard Deviation (STDEV): 0.054

T Value: 1.124

P Value: 0.261

Decision: Rejected

According to hypothesis H6b, the relationship between packaging design and consumer purchase intention is mediated by perceived quality. There is no statistical significance, as seen by the T

value of 1.124, which is much lower than 1.96, and the P value of 0.261, which is much higher than 0.05.

Supporting Studies: Bloch (1995) and Homburg et al. (2015) addressed how important product design is in determining consumer preferences, but they also pointed out that design is frequently assessed in conjunction with other characteristics like durability and utility.

Reason for Rejection: The findings imply that the link between packaging design and customer purchase intention is not substantially mediated by perceived quality. This is in line with research showing that the influence of design is frequently mingled with other aspects of the product, reducing its direct effect on purchase intentions through perceived quality.

H6c: Packaging Material (PM) -> Perceived Quality (PQ) -> Consumer Purchase Intention (CPI)

Standard Deviation (STDEV): 0.067

T Value: 2.088

P Value: 0.037

Decision: Accepted

According to hypothesis H6c, the relationship between package material and customer purchase intention is mediated by perceived quality. There is statistical significance because the T value of 2.088 is higher than the crucial threshold of 1.96 and the P value of 0.037 is lower than 0.05.

Supporting Studies: Studies conducted by Zeithaml (1988), and Sweeney and Soutar (2001) have demonstrated that superior materials greatly raise quality perceptions, which in turn affect purchase intentions. Customers relate premium materials to premium value and longevity.

Rationale for Acceptance: The statistical significance backs up the claim that the relationship between packing material and consumer purchase intention is mediated by perceived quality. The mediating effect of perceived quality is highlighted by the fact that high-quality materials boost perceived quality, which in turn raises purchase intentions.

H6d: Printed Information (PI) -> Perceived Quality (PQ) -> Consumer Purchase Intention (CPI)

Standard Deviation (STDEV): 0.050

T Value: 5.036

P Value: 0.000

Decision: Accepted

The purpose of Hypothesis H6d is to investigate if perceived quality influences the association between printed information and consumer intention to purchase. Strong statistical significance is shown by the P value of 0.000 and the T value of 5.036, which is significantly higher than the crucial value of 1.96.

Studies by Calantone et al. (2006) and Damanpour (1991) provide evidence in Favor of the substantial beneficial influence that printed material has on consumers' perceptions of quality and intentions to buy. Customers are more likely to make a purchase when they perceive a product to be of greater quality and have confidence in it because of printed information that is clear and detailed.

Rationale for Acceptance: The robust statistical significance attests to the effectiveness of perceived quality as a mediator in the relationship between printed information and customer intention to purchase. Precise and thorough written material raises perceived quality, which raises purchase intentions; this highlights the role that perceived quality plays as a mediator.

H6e: Font Style (PS) -> Perceived Quality (PQ) -> Consumer Purchase Intention (CPI)

Standard Deviation (STDEV): 0.062

T Value: 2.997

P Value: 0.003

Decision: Accepted

The association between font style and customer purchase intention is said to be mediated by perceived quality, according to hypothesis H6e. The statistical significance is considerable as the T value of 2.997 surpasses the essential threshold of 1.96 and the P value of 0.003 is significantly lower than 0.05.

Research by Doyle and Bottomley (2006) and Henderson et al. (2004) provides evidence in support of the claim that font type has a big impact on how consumers perceive the quality of a product. Tasteful and legible font styles can increase purchase intentions and are frequently linked to improved perceived quality.

Justification for Acceptance: This hypothesis' acceptance emphasizes how well perceived quality mediates the link between font style and customer purchase intention. Proper font designs emphasize perceived quality, which raises purchase intentions, highlighting the essential function perceived quality plays as a mediator.

Chapter 5

Discussion, Conclusion, And Recommendations

5.1 Discussion

This study sought to investigate how perceived quality affects consumer purchase intentions in the cosmeceutical market through packaging features. Material, labelling, and packaging design were the independent factors that were looked at. According to the findings, packaging characteristics and consumer purchase intentions are positively correlated, with perceived quality serving as a mediating factor. In particular, the statistical research showed that improvements in packing qualities result in a significant increase in perceived quality, which in turn increases purchase intentions. This study clearly shows the substantial favourable influence of perceived quality as a mediator. Features of packaging play a major role in influencing consumer attitudes and inclinations to buy. By moderating the association between packaging qualities and buy intentions, the findings emphasize the significance of perceived quality in boosting customer purchase intentions. This theory is further supported by the quantitative data analysis, which includes mediation effects, regression, and correlation.

It has been found that packaging attributes are critical in influencing consumers' intentions to make a purchase in the cosmeceutical market. The acceptance of this notion underscores how important it is to apply creative packaging techniques in this specific sector. The findings show that improving packaging characteristics can raise consumers' perceptions of quality and, as a result, encourage them to make a purchase. Prioritizing elements like design, material, and labelling allows cosmeceutical firms to increase perceived quality and influence consumer purchasing behaviour. According to well-established theories of consumer behaviour, the results also showed a strong and positive association between perceived quality and purchase intentions (Zeithaml, 1988). Features of packaging are vital in influencing the opinions and decisions of consumers. Customers are more likely to have positive buy intentions for a product if they believe the packaging is of a good Caliber. Furthermore, customer brand identification influences the relationship between packaging characteristics and purchase intentions. The positive influence of packaging features on purchase intentions is amplified by higher brand recognition levels. Studies reveal that purchase intentions are significantly influenced by packaging qualities, with perceived quality serving as a crucial mediating component.

There was insufficient evidence to support the hypothesis (H2b) that claimed that perceived quality mediates the association between packaging colour and customer purchase intention. There is no statistical significance, as shown by the T value of 1.786 and the P value of 0.074. Prior studies, like Singh's (2006), have observed how colour affects the feelings and perceptions of consumers. Its precise effect on perceptions of quality and consequent purchase intentions is less evident, though. Aslam (2006) highlighted the cultural variations in colour preferences and proposed that colour is not a sufficient factor in influencing purchase intentions through perceived quality alone. The hypothesis (H2c) positing that the association between packaging design and customer purchase intention is mediated by perceived quality was found to be unsupported. There is no statistical significance, as indicated by the T value of 1.124 and the P value of 0.261. While discussing the role that product design plays in consumer desire and market success, Bloch (1995) and Homburg et al. (2015) also pointed out that design is frequently assessed in conjunction with other characteristics like durability and utility. This shows that the influence of design is frequently mingled with other aspects of the product, reducing its direct effect on purchase intentions through perceived quality. However, there was evidence to support the hypothesis (H2e) that perceived quality mediates the association between packing material and customer purchase intention. Statistical significance is shown by the T value of 2.088 and the P value of 0.037. High-quality materials dramatically improve perceptions of quality, which in turn increases purchase intentions, according to research by Sweeney and Soutar (2001) and Zeithaml (1988). The mediating effect of perceived quality is confirmed by consumers' associations of premium value and durability with high-grade materials. It was also found to be consistent with the hypothesis (H2d) that perceived quality mediates the association between printed information and customer purchase intention. Strong statistical significance is indicated by the T value of 5.036 and the P value of 0.000. The substantial beneficial influence of printed information on perceived quality and purchasing intentions is supported by studies by Calantone et al. (2006) and Damanpour (1991). Customers' impressions of the product's quality and trust are improved by clear and detailed written information, which increases their propensity to make a buy.

Finally, it was found that the association between font style and customer purchase intention is mediated by perceived quality (H2a). Strong statistical significance is indicated by the T value of 2.997 and the P value of 0.003. Font design can have a big impact on how consumers perceive the quality of a product, according to studies by Doyle and Bottomley (2006) and Henderson et

al. (2004). Styles of fonts that are readable and elegant are frequently linked to increased perceived quality and can increase purchase intentions.

It was found that packaging color and design may not significantly influence consumer purchase intentions through perceived quality, packaging material, printed information, and font style do play crucial roles. High-quality materials, clear and detailed printed information, and aesthetically pleasing font styles are essential packaging attributes that enhance perceived quality and, subsequently, consumer purchase intentions in the cosmeceutical industry.

5.2 Conclusion

The results from the data normality tests indicate that while there is some variability and skewness in the responses, the overall trend is consistent across all measured variables, suggesting stable and comparable perceptions. The demographic analysis of the respondents, mostly middle-line managers with significant educational backgrounds, further strengthens the reliability of the results. The excellent internal consistency and dependability of the constructs are confirmed by the high values of Cronbach's Alpha and Composite Reliability. Robust convergent validity is indicated by AVE values more than 0.5 for every construct, indicating that the constructs accurately reflect the concepts being measured.

The findings indicate that managers in the cosmeceutical industry should prioritize the development and enhancement of their packaging attributes to improve consumer purchase intentions. This involves allocating resources towards high-quality materials, detailed printed information, and aesthetically pleasing font styles. The study suggests that fostering perceived quality through these packaging attributes is crucial. These actions not only support the effective utilization of packaging attributes but also amplify their positive impact on consumer purchase intentions.

The research model's robustness is validated by the high reliability and validity metrics, together with the strong R^2 values. These findings also demonstrate that packaging qualities have a major impact on customer purchase intentions through perceived quality. In particular, the findings highlight the mediation roles of certain packaging qualities by indicating that whereas their direct

effects on customer purchase intentions are not significant, their indirect effects through perceived quality are.

To leverage packaging attributes effectively, organizations must align their packaging strategies with consumer preferences. Strengthening associations between packaging elements and perceived quality can enhance consumer purchase intentions. The study highlights that well-organized and aesthetically pleasing packaging can significantly enhance perceived quality, which in turn supports higher purchase intentions.

The findings underscore the importance of packaging attributes and their integration with perceived quality to drive consumer purchase intentions. For managers in the cosmeceutical industry, this study provides actionable insights, emphasizing the need for strategic resource allocation towards high-quality packaging materials, detailed printed information, and aesthetically pleasing font styles. Investing in these packaging attributes is crucial for enhancing perceived quality and, consequently, consumer purchase intentions.

5.3 Theoretical Implications

Most of the existing research on packaging attributes and consumer purchase intentions has been conducted in industrialized nations. These findings are difficult to apply directly to developing countries like Pakistan at a regional level since the economies and cultures are not comparable. By investigating package qualities related to cosmeceutical consumers in the twin towns of Islamabad and Rawalpindi, this research seeks to close the current knowledge gap in this area. Through highlighting the intermediary function of perceived quality, this study offers a refined comprehension of how packaging characteristics can augment consumer buy intentions in Pakistan.

Several studies support this theoretical contribution. Ahmed and Ahmed (2017) highlight the significance of packaging in influencing the purchase decisions of millennials in Pakistan, showing how packaging attributes such as color, design, and material affect consumer perceptions and buying behavior. Khan and Zubair (2018) provide insights into the Pakistani market, emphasizing that packaging plays a crucial role in shaping consumer perceptions and

intentions, with perceived quality mediating the relationship between packaging attributes and purchase intentions. Shaikh and Shaikh (2016) identify packaging attributes as a significant determinant of consumer purchase intentions in Karachi, highlighting the importance of perceived quality. Abdullah and Tanveer (2019) explore the impact of various packaging attributes on consumer buying behavior within the Pakistani cosmetics industry, suggesting that packaging design, material, and information significantly influence consumer perceptions of quality and purchase intentions. Hussain and Shabbir (2016) examine the relationship between packaging and consumer purchase intention in the cosmetics industry, finding that well-designed packaging can enhance perceived quality and purchase intentions. Farooq and Jabbar (2020) focus on the cosmeceutical industry in Pakistan, highlighting the crucial role of packaging in consumer decision-making processes and emphasizing the mediating role of perceived quality in linking packaging attributes to purchase intentions. Drawing on these studies, this research contributes to a more nuanced understanding of how packaging attributes influence consumer purchase intentions in the Pakistani cosmeceutical market, filling the gap in existing literature and providing insights specific to the regional context of Islamabad and Rawalpindi.

5.4 Managerial Implications

The study provides a rich understanding of how to use packaging attributes to enhance consumer purchase intentions, particularly for the cosmeceutical industry in Pakistan. For practitioners, this study offers actionable insights into the strategic value of high-quality materials, detailed printed information, and aesthetically pleasing font styles. It provides a framework for understanding the intricate dynamics involved in utilizing these packaging attributes effectively. Insights can guide managers in implementing packaging strategies that are tailored to the unique challenges and opportunities of the Pakistani market.

Based on the findings, several recommendations can be made for managers and decision-makers in the cosmeceutical industry:

1. **Allocate Resources towards High-Quality Materials:** Organizations should allocate resources towards acquiring high-quality materials for their packaging to enhance perceived quality.
2. **Enhance Printed Information:** Focus on providing detailed and accurate printed

information on packaging to improve perceived quality and trust.

3. **Aesthetic Font Styles:** Invest in aesthetically pleasing and readable font styles to enhance the overall appeal and perceived quality of the packaging.
4. **Align Packaging Strategies with Consumer Preferences:** Ensure that packaging strategies are in line with consumer preferences to enhance perceived quality and purchase intentions.
5. **Continuous Improvement and Innovation:** Continuously assess and improve packaging attributes based on consumer feedback and market trends to maintain high perceived quality and consumer purchase intentions.

5.5 Limitation & Future Research Directions

5.5.1 Limitations

- 1) **Sample Size and Generalizability:** Because of the small sample size of people who use cosmeceutical products in Islamabad and Rawalpindi, the study's conclusions might not apply to a larger population. To improve the generalizability of the results, larger and more diverse samples may be used in future research.
- 2) **Cross-Sectional Design:** The study's cross-sectional design makes it more difficult to identify causal relationships. To establish a cause-and-effect link and look into the long-term effects of packaging features on consumer purchase intentions, longitudinal studies are required.
- 3) **Self-Reported Data:** Using customer self-reported data could result in bias. It would be advantageous for future research to include a variety of data sources, such as objective performance indicators and third-party evaluations, to verify the results.

5.5.2 Future Directions:

- 1) **Industry Comparisons:** Perform comparative analyses across many industries to comprehend the significance of packaging attributes in varied scenarios.
- 2) **Longitudinal Studies:** Conduct longitudinal studies to investigate the enduring effects of packaging attributes on consumer purchase intentions.

3) Exploring Additional Variables: Examine supplementary variables such as market conditions and competitive intensity to obtain a more comprehensive understanding of the elements that impact consumer purchase intentions.

4) Qualitative Research: Utilize qualitative research approaches, such as case studies and interviews, to enhance quantitative findings and gain a deeper understanding of how packaging attributes influence consumer purchase intentions.

Other Mediators and Moderators: Conduct further research on additional mediators and moderators to have a more comprehensive understanding of the interactions taking place. Variables such as organizational agility, innovation capability, and leadership styles could be explored.

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Annexture 1

Packaging Color

	SD	D	N	A	SA
The color used in the packaging of a Cosmeceutical product matters.	1	2	3	4	5
The color of a Cosmeceutical packaging is significant in my purchasing decision.	1	2	3	4	5
I can remember a Cosmeceutical product when I see a similar color.	1	2	3	4	5
I associate the color of a Cosmeceutical product packaging with its brand image.	1	2	3	4	5

Packaging Design

The wrapper design plays an important role in the packaging of a Cosmeceutical product.	1	2	3	4	5
I often find myself more inclined to purchase a cosmeceutical product when its wrapper design is appealing.	1	2	3	4	5
The wrapper design creates a perception in my mind about the product.	1	2	3	4	5

Packaging Material

I choose a cosmeceutical product because of its superior	1	2	3	4	5
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packaging material.

The packaging of a cosmeceutical product is appealing to me. 1 2 3 4 5

The quality of the packaging material of a cosmeceutical product makes me believe it's better. 1 2 3 4 5

The quality of the packaging material of a cosmeceutical product doesn't affect my decision. 1 2 3 4 5

I believe a cosmeceutical product is well-known due to its packaging. 1 2 3 4 5

Printed Information

I always read the printed information on the packaging of a cosmeceutical product. 1 2 3 4 5

I assess a cosmeceutical product based on the printed information while shopping. 1 2 3 4 5

I consider the information printed on cosmeceutical product packaging to be essential. 1 2 3 4 5

Font Styles

The font styles on the packaging of a cosmeceutical product should be appealing. 1 2 3 4 5

I admire the creative font styles used on a cosmeceutical product packaging. 1 2 3 4 5

The font size helps me recall a cosmeceutical product. 1 2 3 4 5

Perceived Quality

The quality of the packaging's workmanship contributes to creating the impression of high quality for the product. 1 2 3 4 5

High quality level packaging make you believe the product is of good quality. 1 2 3 4 5

Dependable packaging will lead you to believe the product is dependable. 1 2 3 4 5

Durable packaging would give the impression that the product itself is durable. 1 2 3 4 5

Consumer Purchase Intentions

I will buy a product on my next purchase based on its packaging attributes. 1 2 3 4 5

When purchasing cosmeceuticals, I consider the product as an option due to its packaging. 1 2 3 4 5

I plan to buy a cosmeceutical product primarily because of its packaging. 1 2 3 4 5

I will recommend my friends and family to buy a cosmeceutical product due to its packaging attributes. 1 2 3 4 5

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