Exploring the Nexus between Packaging, Quality, Equity and Loyalty in Drug Industry

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Abstract

A well-designed product packaging, increased perceived quality and brand equity are essential elements that can strengthen brand loyalty in a keenly competitive retail environment. Although the impact of packaging, perceived quality and brand equity on loyalty has gained considerable attention in the marketing literature, there are limited studies on the impact of packaging on brand loyalty mediated by perceived quality and brand equity in the drug industry. In this respect, this paper aimed to examine the mediation influence of perceived quality and brand equity on the relationship between packaging and loyalty in the drug industry. The data for this paper were collected from a sample of 316 customers using a systematic sampling procedure. The study's hypotheses were statistically examined via structural equation modelling with the aid of smart PLS version 3.3.3. Findings from this paper show that brand equity fully mediates the impact of packaging on loyalty but partially mediates the path between perceived quality and loyalty. The research also found that perceived quality perfectly mediates the relationship between packaging and loyalty but partially mediates the impact of packaging on brand equity. This paper, therefore, established that perceived quality and brand equity are critical in designing packaging to improve brand loyalty in the drug industry.

Keywords

Drug Industry, Packaging, Perceived Quality, Brand Equity, Brand Loyalty

1. Introduction

Non-prescription medications play a vital role in healthcare delivery across the world, especially in remote communities where healthcare units are not readily accessible. In Ghana, herbal medicines are often sold as non-prescription medi-

cations in retail pharmacies, over-the-counter medicine stores and herbal shops (World Health Organisation, WHO, 2011; WHO, 2005). It has also been reported that more than half of Ghanaians depend on herbal remedies to combat and manage their sicknesses (WHO, 2019). Herbal medicine relates to "processed plant materials or raw plant materials and herbal medicinal products with therapeutic or human benefits derived from one or more plants" (WHO, 1998: p. 6).

The growing demand for herbal medicinal products might have led to their rapid expansion, resulting in stiff competition in the drug market. The resultant effect is low prices and margins in the industry. It has been highlighted that innovative product packaging and superior perceived quality are critical factors for developing and strengthening brand equity (Keller, 2013; Buil, Martinez, & de Chernatony, 2013). Healthy brand equity can create a platform for securing an edge over the competition, which can lead to increased market share and growth. Besides, well-designed packaging, perceived quality and brand equity can provide an avenue to generate greater customer brand loyalty (Oppong & Phiri, 2018b; Hyun & Kim, 2011), which may lead to increased sales and higher margins.

A review of literature also suggests that a distinctive product packaging enhances perceived quality (e.g., Wang, 2013), brand equity (e.g., Klimchuk & Krasovec, 2006; Keller, 2013), brand loyalty (e.g., Dhurup, Mafini, & Dumasi, 2014), and in turn, perceived quality (e.g., Hyun & Kim, 2011; Mensah, Oppong, & Addae, 2022) and brand equity (Lassar, Mittal, & Sharma, 1995; Oppong & Phiri, 2018a) positively impact on loyalty. Likewise, studies show that increased perceived quality positively influences brand equity (Yoo, Donthu, & Lee, 2000; Buil et al., 2013). This indicates that perceived quality and brand equity can play an intervening role in the influence of packaging on brand loyalty. Prior research investigated brand association's intervening role in the effect of packaging on perceived quality and brand loyalty (Mensah et al., 2022). However, there are limited investigations on the relationship between packaging and loyalty via the mediation effects of perceived quality and brand equity in the drug industry. For this reason, this paper sought to look into the mediating roles of perceived quality and brand equity in the relationship between packaging and brand loyalty in the drug market. Hence, the objectives to address the aim of the research are to: 1) evaluate the impact of packaging on perceived quality, brand equity and brand loyalty, 2) determine the impact of perceived quality and brand equity on brand loyalty, 3) assess the indirect effects of perceived quality and brand equity on the relationship between packaging and loyalty in the drug industry.

The research is organized as follows: First, the literature review, conceptual model and hypotheses, methodology, and data analysis results are discussed. The final part of the research presents the discussion, implications, conclusion, limitations, and direction for future research.

2. Literature Review

2.1. Brand Loyalty

Developing and improving customers' brand loyalty is one of the strategic objectives of companies because of its critical role in securing a sustainable advantage in a competitive marketplace. Brand loyalty measures customers' favourable attitude to a particular brand (Pride & Ferrell, 2015). Oliver (2015: p. 432) also defined loyalty as "a deeply held commitment to rebuy or re-patronise a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviour". Dick and Basu (1994) also suggested that loyalty represents the strength of the relationship between customers' relative attitude and re-patronage behaviour towards a firm and its products. Customer brand loyalty, therefore, has been classified into attitudinal and behavioural loyalty (Dick & Basu, 1994; Chaudhuri & Holbrook, 2001). Behavioural loyalty shows repeated patronage of a brand, whereas attitudinal loyalty indicates a customer's commitment to a brand. Oliver (2015) also identified four stages in the development of customer loyalty in an increasing magnitude; cognitive, affective, conative and action loyalty. Cognitive loyalty is concerned with the brand's performance qualities, affective loyalty is directed towards the brand's likeableness, conative loyalty denotes the consumer's intention to repurchase a brand, and action loyalty expresses a commitment to the action of re-patronage. A greater customer loyalty base is reflected in large market share, word-of-mouth referrals, a barrier to competitors' activities and entry, and high profitability (Chaudhuri & Holbrook, 2001; Aaker, 1996).

2.2. Research Model

The conceptual model delineates the main variables used and their proposed relationships in the research (Sekaran & Bougie, 2016). In the current research, packaging is a predictor variable, perceived quality and brand equity are intervening variables, whilst brand loyalty is the outcome variable. The research model depicted in Figure 1 shows that packaging has a direct influence on brand equity, perceived quality and loyalty. In turn, perceived quality and brand equity positively affect loyalty, whilst perceived quality has a direct effect on brand equity.
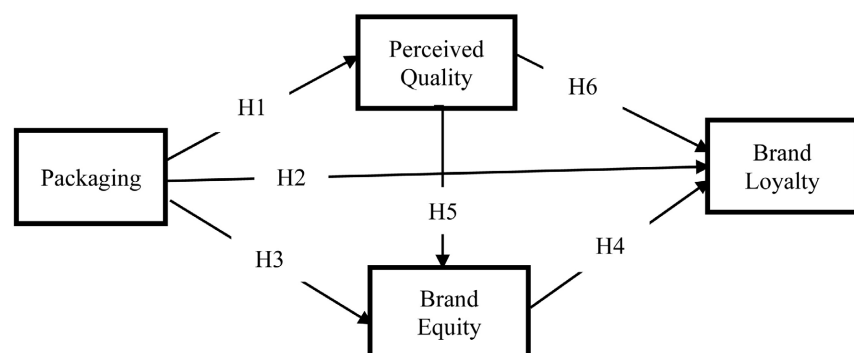

Figure 1. Source: Designed by the researchers.

In the present study, packaging is described as producing a container and the graphics of a product (Pride & Ferrell, 2015), whilst brand equity measures "the difference in consumer choice between the focal branded product and an unbranded product given the same level of product features" (Yoo et al., 2000: p. 196). Perceived quality is operationalised as the overall judgement about the excellence of a product (Zeithaml, 1988), whilst brand loyalty is customers' favourable attitudes and behavioural disposition towards a particular brand.

2.3. Research Hypotheses

Based on the research model deduced from the literature, the hypothesised relationships between the constructs are illustrated below.

2.3.1. Packaging

Product packaging plays a significant role in consumer behaviour because it is the consumers' initial exposure to the product and therefore, influences their brand choice decisions in the store. Packaging relates to the designing and manufacturing of the container for a product (Kotler & Keller, 2016). Pride and Ferrell (2015: p. 282) also defined packaging as "the development of a container and a graphic design for a product". Product packaging usually consists of primary, secondary and tertiary packages. The primary package is the first container that envelops the product and the secondary package safeguards the product in the primary package and may be disposed of after the product is consumed. The tertiary package covers the first two aspects of the package which aid in the distribution, and unification and overall safeguards the product in its total supply chain (Simms & Trott, 2010; Ampuero & Vila, 2006).

A review of the literature indicates that packaging has been considered to be an intrinsic and extrinsic product attribute (Zeithaml, 1988; Underwood, 2003). The researchers suggested that intrinsic product features are the core ingredients of the product to facilitate its function, whereas extrinsic elements are the product information attached to the packaging. However, Keller (1993) viewed product packaging as one of the brand elements which is unrelated to the core ingredients for the product to function, but rather helps in the buying and consumption processes. Kotler and Armstrong (2012) highlighted that the traditional function of packaging was to contain and protect the product in the distribution chain. However, increased competition in the retail and self-service marketplaces has altered the role of packaging to perform essential marketing functions by describing the product's features, securing customers' attention and driving sales (Kotler & Armstrong, 2012; Kotler & Keller, 2016). Simms and Trott (2010) also suggested that an innovative packaging design potentially affects consumers' purchase decisions at the point of sale and can enhance the product's success, particularly in the fast-moving consumer goods industry.

Garber, Burke and Morgan (2000) noted that visual, verbal and tactile packaging qualities are used as a cue of product functionality, quality, and usage situations, and evoke prior exposures in the consumer's memory. WHO (2002) also

reported that medicinal products' quality is usually inferred from their packaging. As a result, product packaging is an important indicator of its quality (Silayoi & Speece, 2007). Hess, Singh, Danes and Metcalf (2014) emphasized that packaging can support consumer satisfaction which underpins customer brand loyalty and hence, profitability. It has also been contended that packaging has a positive impact on brand equity via the point-of-difference created by functional or aesthetic packaging attributes, or indirectly via the role of brand image and awareness (Keller, 2013; Klimchuk & Krasovec, 2006). Prior studies also indicated that packaging positively influences perceived product quality (Underwood & Klein, 2002; Wang, 2013; Mensah et al., 2022) and brand loyalty (Dhurup et al., 2014; Oppong & Phiri, 2018b).

Based on the above discussions, the hypotheses posited are as follows:

H1: *Packaging is significant and directly related to perceived quality*

H2: *Packaging is significant and directly related to brand equity*

H3: *Packaging is significant and directly related to brand loyalty*

2.3.2. Customer-based Brand Equity

A strong brand with positive equity is well-acknowledged as one of the invaluable and strategic company's assets because it generates a long-term cash flow. Keller (1993) defined brand equity as the additional value accruing to a product due to the company's prior marketing efforts. Keller (1993: p. 1) noted that customer-based brand equity (CBBE) measures "the differential effect that the brand knowledge has on consumer response to the marketing of that brand". A brand, therefore, has positive or negative CBBE if it commands more or less customers' favourable reactions to a product and its marketing activities compared to its unbranded version. The underlying notion of the CBBE is that the health of a brand is the knowledge customers have about the brand in their memory, arising from past exposures to the brand. The key indicator of CBBE is, therefore, brand knowledge, which includes brand awareness and brand image. Thus, CBBE occurs when there is a high level of awareness and strong, favourable and unique brand association in memory. Aaker (1991) also explained that brand equity consists of assets and liabilities that accrue to a brand name which increases or reduces the product's value to the company and its customers. The author further suggested that CBBE is a multi-dimensional construct consisting of brand awareness, loyalty, association and perceived quality. The study is, therefore, guided by the dimensionality of Aaker's (1991) CBBE model because it includes all of the constructs that this study seeks to investigate.

Keller (2013) asserted that powerful brands with high equity provide marketing advantages to a company which are usually manifested in an increased loyal customer base, more inelastic to customers' response to price hikes, trade leverage, licensing and brand extension opportunities. More so, Aaker (1991) highlighted that brand equity supplies value to the customers by helping in the interpretation, retrieving and storing of brand information, including purchasing decisions. It has also been emphasized that a high level of brand equity signifi-

cantly influences loyalty (Lassar, Mittal, & Sharma, 1995; Oppong & Phiri, 2018a), whilst brand equity is positively affected by packaging (Keller, 2013; Klimchuk & Krasovec, 2006) and perceived quality (Yoo et al., 2000; Buil et al., 2013).

Based on the above discussions, the hypotheses formulated are as follows:

H4: *Brand equity is significant and directly related to brand loyalty*

H7: *Brand equity has a mediation influence on the relationship between packaging and brand loyalty*

H8: *Brand equity has a mediation influence on the relationship between perceived quality and brand loyalty*

2.3.3. Perceived Quality

Zeithaml (1988) defined perceived quality as a consumer's subjective evaluation of the overall excellence of a good. It has been highlighted that perceived quality provides the basis for differentiation, a reason to buy, line extensions, channel member interest and price premium, and overall contributing to a firm's profitability (Aaker, 1992). Extant literature points out that perceived quality is one of the important elements of perceived value (Zeithaml, 1988), and ultimately, the superiority of a brand can motivate a customer to choose that brand rather than its competitors (Yoo et al., 2000).

Zeithaml (1988) emphasized that perceived quality differs from objective quality. The objective quality, however, indicates the superiority of the product's intrinsic features. Again, perceived quality also differs from manufacturing-based quality and product-based quality. Aaker (1991) asserted that product-based quality relates to the number of ingredients that make up the product, whilst manufacturing-based quality refers to conformance to production or service requirements. Gil, Andres and Martinez (2007) contended that the perceived quality of the product can, however, be supported through the improvement of the actual product quality. Aaker (1991) noted that the perceived quality of a product is defined based on its performance, reliability, durability, serviceability, fit and finish, product features and conformance to specification. The author also stated that perceived quality is a key indicator of user satisfaction which drives future buying decisions and customer loyalty. Furthermore, earlier studies reported that perceived quality positively influences brand equity (Yoo et al., 2000; Buil et al., 2013) and brand loyalty (Hyun & Kim, 2011; Gil et al., 2007; Mensah et al., 2022), and in turn, perceived quality is positively and significantly affected by packaging (Underwood & Klein, 2002; Wang, 2013; Mensah et al., 2022).

Based on the above discussions, the hypotheses posited are as follows:

H5: *Perceived quality is significant and directly related to brand equity*

H6: *Perceived quality is significant and directly related to brand loyalty*

H9: *Perceived quality has a mediation influence on the relationship between packaging and brand loyalty*

H10: Perceived quality has a mediation influence on the relationship between packaging and brand equity

3. Research Methodology

The research methodology employed includes the population and sampling, data collection instruments and procedures, and data analysis to address the aim of the research.

3.1. Research Population and Sampling

The study had a population of 3710 customers who purchase herbal medicines from 80 registered herbal retail shops in a day from the central business district in Kumasi. The number of herbal retail shops found in the central business district was obtained from the Traditional Medicine Practice Council (TMPC) in Kumasi, which has the power to register herbal retail shops in the metropolis. A sample of 348 customers was selected based on Krejcie and Morgan's (1970: p. 608) sample size model.

3.2. Scale Items Design and Data Collection Method

The study relied on multiple test items to measure the customers' perceptions of the herbal brand's packaging, quality, equity and loyalty by using five-point responses, ranging from 1 = strongly disagreed to 5 = strongly agree. The scale items were adopted from the previous studies and modified. Thus, the scale items used to measure perceived quality were obtained from Gil et al. (2007) and Yoo et al. (2000) and brand equity was developed by Yoo et al. (2000). Again, test items of brand loyalty were from Tong and Hawley (2009) and Yoo et al. (2000) and that of packaging was from Oppong and Phiri (2018b).

The questionnaires were distributed to the customers while shopping through a systematic sampling method. Thus, the first customer was selected at random and thereafter, one of every eleventh customer was invited to take part in the survey. A systematic sampling strategy was employed because it created an opportunity to choose the respondents without prior information about them (Malhotra & Birks, 2007). A total of 307 questionnaires were used for the analysis out of 316 distributed due to inconsistent responses.

4. Data Analysis and Results

The analytical tools used to examine the objectives of this research include the descriptive statistics and structural equation modeling (SEM).

4.1. Descriptive Statistics

Descriptive statistics were used to examine the samples' characteristics and their perceptions of the variables used in this paper. These results of the sample characteristics in Table 1 indicate that a large proportion of the samples were male, young and hold a secondary education. Thus, the results in Table 1 show that a

Table 1. Summary results of sample characteristics.

Variable	Frequency	Percent (%)	Valid Percent (%)
Sex	208	67.8	68.4
Male	96	31.3	31.6
Female	304	99.0	100.0
Missing	3.0	1.0	
Total	307	100	
Age (Years)			
18 - 25	124	40.4	40.7
26 - 35	115	37.5	37.7
36 - 45	33	10.7	10.8
46 - 60	18	5.9	5.9
More than 60	15	4.9	4.9
Total	305	99.3	100.0
Missing	2.0	.70	
Total	307	100.0	
Education			
Basic Education	39	12.7	12.7
Secondary Education	120	39.1	39.2
Diploma Education	62	20.2	20.3
Tertiary Education	85	27.7	27.8
Total	306	99.7	100.0
Missing	1.0	.30	
Total	307	100	

total of (208) 68.4 per cent were male, whilst (96) 31.6 per cent were female. More so, (124) 40.7 percent were between the age of 18 and 25 years, and (120) 39.1 percent had completed senior high school.

Moreover, the respondents' perceptions to herbal products' packaging, brand equity, quality and loyalty as shown in Table 3 are satisfactory because all the variables have means of above 3.0 and a standard deviation of less than 1.0.

4.2. Structural Equation Modelling

The research hypotheses were tested by using structural equation modelling (SEM) with the help of smart PLS version 3.3.3. This analytical tool was employed because it is efficient and suitable for testing individual several regression equations simultaneously (Byrne, 2016), and can handle relatively small sample size and non-normally distributed data (Hair, Sarstedt, Hopkins, & Kuppelwies-

er, 2014). The SEM was conducted in two stages based on the recommendation of Byrne (2016). Specifically, the measurement model was conducted before the path model.

4.2.1. Measurement Model

The research model involves reflective multiple-scale items and as a result, a reflective measurement model was examined. The measurement model was conducted to identify the test item's reliability, composite reliability, convergent validity and discriminant validity (Hair, Hult, Ringle, & Sarstedt, 2017). The results of the model provided evidence of reliability and validity of the variables because all the standardised outer loadings are above .70 and are statistically significant at a $p < .05$ as depicted in Table 2 (Hair et al., 2017).

Again, the psychometric properties comprising indicators' reliability, composite reliability, convergent validity and discriminant validity are presented in Table 3. First, Cronbach's alpha used to determine the scale items' reliability is acceptable because they exceed .70 (Tavakol & Dennick, 2011). Besides, the composite reliability coefficients are above .70, ranging between .855 and .891

Table 2. Results of the measurement model.

Constructs and their Indicators		M	SD	Standardised Loadings	t-values
Packaging					
PA2	The packaging preserves the contents of X.	3.596	.855	.730	16.104
PA4	The packaging of X makes it environmentally friendly.	3.876	1.075	.829	33.387
PA5	The packaging of X makes it convenient to use.	3.997	.992	.878	57.769
Brand Equity					
BE1	X's packaging gives me a reason to buy X instead of any other brand, even if they are the same in quality or price.	3.476	1.000	.850	39.739
BE2	The packaging of X would make me prefer to buy X, even if another brand has the same features as X.	3.625	.963	.860	44.069
BE3	The packaging of X makes it more than a product to me.	3.583	1.024	.856	49.355
Brand Loyalty					
BL2	The packaging of X would make me recommend X to my friends.	3.652	1.009	.834	37.460
BL4	The packaging of X makes me loyal to it.	3.700	1.121	.849	40.812
BL5	I will keep buying X as long as I am satisfied with the packaging of the brand.	3.896	1.101	.866	42.903
Brand Quality					
BQI	The packaging of X makes it function well.	3.336	1.127	.834	37.285
BQ3	The packaging of X shows that the quality of X is very high.	3.603	1.134	.892	69.191
BQ5	X`s packaging makes the product safe for use.	4.055	1.088	.813	25.132

Notes: X = Focal brand; M = Mean; Standard Deviation; All standardised estimates are significant at the $p = .05$ level.

Table 3. Results of psychometric properties.

Latent Constructs	M	SD	α	CR	AVE	BE	BL	PA	BQ
Brand Equity (BE)	3.658	.844	.817	.891	.732	.855*			
Brand Loyalty (BL)	3.670	.871	.807	.886	.722	.682	.850*		
Packaging (PA)	3.758	.762	.745	.855	.664	.478	.442	.815*	
Brand Quality (BQ)	3.691	.886	.803	.884	.718	.543	.699	.480	.847*

Notes: M = Mean; SD = Standard Deviation; α = Cronbach alpha; CR = Composite Reliability; AVE = Average Variance Extracted; ** = Square root of AVE; Off-diagonal estimates measure the squared inter-construct correlations.

which show satisfactory constructs' reliability (Hair et al., 2017). Furthermore, the AVE scores fall between .664 and .732, providing proof of convergent validity (Bagozzi & Yi, 1988). Likewise, the square root of AVEs exceeds the inter-variable correlations which provide evidence of discriminant validity (Fornell & Lacker, 1981). More so, the HTMT ratio of correlations provided further proof of discriminant validity. The findings in Table 4 report that all constructs have an HTMT ratio of correlation of less than .85, testifying to independence between the constructs (Henseler, Ringle, & Sarstedt, 2015).

Table 4. Results of Heterotrait-Monotriat (HTMT) ratio.

Latent Variables	Brand Equity	Brand Loyalty	Packaging	Brand Quality
Brand Equity	1			
Brand Loyalty	.836	1		
Packaging	.608	.563	1	
Brand Quality	.662	.863	.604	1

4.2.2. Structural Model

The structural model was employed to examine the hypotheses in the research. This was done by using bootstrapping with 5000 subsamples and bias-corrected and accelerated bootstrap (BCa) at t-statistics of 1.96 at a significance level of .05. The explanatory power of perceived quality, equity and loyalty was examined in the path model using a coefficient of determination (R^2). The results show that perceived quality, equity and loyalty have R^2 of .231, .356 and .619 which indicate that perceived quality and brand equity have weak predictive power, whilst brand loyalty has a moderate predictive power in the structural model (Hair et al., 2017). Besides, the cross-validated redundancy measure (Q^2) of perceived quality, equity and loyalty are .158, .246 and .437 respectively. This

result shows that perceived quality has small predictive relevance, whereas brand equity and loyalty have medium predictive relevance in the path model (Hair, Risher, Sarstedt, & Ringle, 2019).

Furthermore, to assess the extent to which the predictor variables impact the outcome variables, effect size (f^2) was conducted. It has been suggested that f^2 values of .02, .15 and .35 suggest that a predictor variable has a small, medium and large effect, respectively on the outcome variable. Again, f^2 values less than .02 indicate that there is no effect (Cohen, 1988; Hair et al., 2017). The results in Table 5 reveal that packaging has small, medium and no effect on brand equity (f^2 = .095), perceived quality (f2 = .300) and brand loyalty (f^2 = .001) respectively. More so, perceived quality has medium and large effects on brand equity (f^2 = .198) and loyalty (f^2 = .357), and in turn, brand equity has a medium effect on loyalty (f^2 = .303).

Table 5 and Figure 2 display the results of the direct effects and the indirect effects of the structural model. The results of the path model show that packaging has a direct effect on brand quality and equity at a $p < .05$, supporting *H1* and *H2* respectively. However, the path between packaging and loyalty is not significant at $p < .05$, and hence, *H3* is not supported. Again, the results of the path analysis show that brand equity has a direct effect on brand loyalty at a significance level of .05, supporting *H4*. Finally, the results of the path model indicate that perceived quality has a significant and positive effect on brand equity and loyalty at a $p < .05$, confirming *H5* and *H6* respectively.

Table 5. Results of direct effects and mediation effects.

Hypotheses	Direct Effects	f^2	Beta estimates	t-value	*p*-value
H1	Packaging → Brand Quality	.300	.480	8.695	.000
H2	Packaging → Brand Equity	.095	.282	3.773	.000
H3	Packaging → Brand Loyalty	.001	.019	.332	.740
H4	Brand Equity → Brand Loyalty	.303	.423	6.671	.000
H5	Brand Quality → Brand Equity	.198	.407	5.692	.000
H6	Brand Quality → Brand Loyalty	.357	.460	6.745	.000
Hypotheses	Mediation Effects		Direct without Mediator	Direct with Mediator	Indirect Effect
H7	Packaging → Equity → Loyalty		.019 (.740)*	.423 (.000)**	.120 (.000)**
H8	Quality → Equity → Loyalty		.460 (.000)**	.423 (.000)**	.172 (.000)**
H9	Packaging → Quality → Loyalty		.019 (.740)*	.460 (.000)**	.221 (.000)**
H10	Packaging → Quality → Equity		.282 (.000)**	.407 (.000)**	.196 (.000)**

Notes: * = Not statistically significant @ $p < .05$; ** = Statistically significant @ $p < .05$.
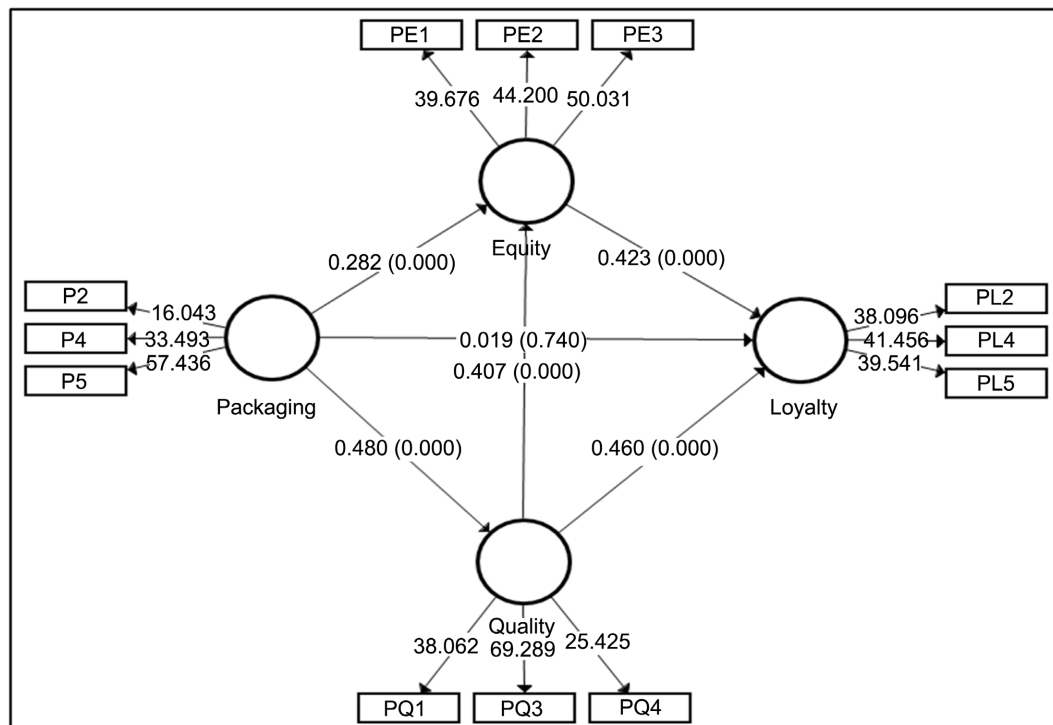
Figure 2. Path diagram of structural model.

4.2.3. Mediation Effects

The study also sought to investigate the intervening role of brand quality and equity in the impact of packaging on loyalty. Following Baron and Kenny's (1986) guide for testing mediation, the direct effects without the mediators (perceived quality and brand equity) were tested in the path model. As stated earlier, Table 5 shows the statistical significance of the direct and mediation effects. To evaluate the mediation effects, the mediators were added to the direct path analysis. The results of the mediation analysis in Table 5 show that all the indirect effects are significant at a $p < .05$, confirming *H7*, *H8*, *H9* and *H10*. As a result, the findings indicate that brand equity and perceived quality fully mediate the path between packaging and loyalty. The results also show that brand equity partially mediates the impact of perceived quality on loyalty, whilst the path between packaging and brand equity is partially mediated by brand quality.

5. Discussion of Findings

The study sought to examine the mediating roles of brand equity and perceived quality in the impact of packaging on brand loyalty in the drug industry. The results of the study show that packaging has a positive and significant effect on the medicinal herbal product quality in the drug industry. This result is consistent with previous studies (Underwood & Klein, 2002; Wang, 2013; Mensah et al., 2022), which indicate that packaging has a significant influence on product quality. This implies that the quality of the medicinal herbal product is reflected in the quality of its packaging. Thus, the customers infer the quality of the herbal

medicinal products from their packages. Besides, the study found that herbal product packaging exerts a positive influence on brand equity. This outcome concurs with extant literature (Klimchuk & Krasovec, 2006; Keller, 2013), which suggests that product packaging has a direct impact on brand equity. This outcome suggests that well-designed product packaging plays a significant role in enhancing herbal brands' equity in the drug industry. The data analysis results demonstrate that brand equity positively impacts the customers' brand loyalty in the drug market. This result is in agreement with past studies (Lassar et al., 1995; Oppong & Phiri, 2018a), which point out that brand equity contributes to strengthening customers' brand loyalty. This result suggests that the customers are loyal to the herbal brands because they obtain a greater value from them.

More so, similar to previous studies (Yoo et al., 2000; Buil et al., 2013), this paper found that perceived quality has a direct and significant effect on brand equity in the drug industry. This outcome suggests that increased perceived herbal medicinal product quality enhances its value in the drug industry. Furthermore, the data analysis' findings show that brand loyalty is positively influenced by brand quality. This outcome concurs with prior studies (Hyun & Kim, 2011; Gil et al., 2007; Mensah et al., 2022), which report that perceived quality has a positive influence on customer loyalty. This means that the customers are loyal to herbal medicinal products due to their increased quality. Findings from the study also reveal that brand equity fully mediates the impact of packaging on brand loyalty, but partially mediates the path between perceived quality and loyalty. This outcome suggests that brand equity fully contributes to the association between packaging and brand loyalty but partially contributes to the impact of perceived quality on loyalty. Moreover, it was established that perceived quality acts as a full mediator in the association between packaging and loyalty, but partially mediates the impact of packaging on brand equity. This result implies that perceived quality plays a complete role in the association between packaging and loyalty, but plays a partial role in the path between packaging and brand equity in the drug industry.

5.1. Practical Implications

This research has some practical implications for the strategic brand decisions of management in the drug industry. It was established that packaging contributes to enhancing herbal product quality and brand equity in the drug market. Thus, innovative packaging is a critical ingredient for building favourable herbal brand quality and equity. Therefore, managers of herbal firms need to include innovative packaging design in their decisions to enrich the perceived quality and brand equity in the drug industry. Moreover, managers should note that innovative packaging, perceived quality, and brand equity are key factors that determine customer loyalty which can enable them to increase and sustain their market share. Therefore, successful quality and brand equity strategies should be designed and implemented to secure greater loyalty in the drug industry.

More so, perceived quality increases herbal brand equity and as a result, managers of herbal firms need to strengthen customers' perceptions of herbal brand quality to enhance equity in the drug industry. The enhanced value of the brands will create a large loyal customer base for herbal firms. More so, brand equity plays an essential role in the relationship between packaging, perceived quality and brand loyalty. In this regard, managers should include brand equity in their decisions to build distinctive packaging and perceived quality to improve customer loyalty in the drug industry. Furthermore, it is confirmed that perceived product quality plays a vital role in the interplay between packaging, brand equity and loyalty. Accordingly, managers should consider the perceived herbal quality in their strategy in designing packaging to enhance brand equity and loyalty in the drug industry. Finally, having innovative packaging, brand quality, and equity is critical but not enough to create customer loyalty. Satisfying customers based on the assurances offered through marketing activities such as promotion and advertising are significant to creating brand-oriented customer satisfaction and trust. The resultant effect is that customer satisfaction and trust obtained through brand experience will adequately determine customer loyalty.

5.2. Theoretical Implications

The research not only contributes to the strategic decisions of the management of herbal companies but also expands the existing literature on brand management, particularly in the drug industry. The significance of product packaging to perceived quality, brand equity and brand loyalty is documented in the marketing literature in recent years. A recent study conducted by Mensah et al. (2022) reported that brand association mediates the packaging, perceived quality and brand loyalty nexus. However, studies on the impact of packaging on brand loyalty through the mediating role of perceived quality and brand equity are lacking. It is also important to understand the underlying role of brand equity and perceived quality in the interactions between packaging and brand loyalty in the brand management theory. The present study strengthens the argument that the relationship between product packaging and customer loyalty can be explained by brand quality and equity. Therefore, the current study contributes to expanding the existing CBBE theory. Again, empirical evidence showing a direct relationship between packaging and brand equity is lacking in the marketing literature. This research contributes to advancing the brand management theory by bringing to the fore the direct influence of packaging on brand equity. Moreover, a model was developed to delineate the causal relationship between packaging, perceived quality, brand loyalty and brand loyalty in the drug industry. This model is robust because its reliability and validity have been tested. As a result, this model can be applied in future brand management research.

6. Conclusion

The study was set out to explore the intervening role of brand equity and per-

ceived quality in the impact of packaging on brand loyalty in the drug industry. It was confirmed that herbal product packaging plays a critical role in strengthening perceived quality, brand equity and loyalty in the drug industry. In turn, brand quality and equity were found to exert a positive influence on the customers' brand loyalty. Moreover, brand quality has a direct and significant effect on brand equity. This study, therefore, demonstrates that the causal interrelationship between packaging, perceived quality and brand equity is crucial to supporting customer loyalty in the drug industry. It was also revealed brand equity plays a complete role in the interplay between packaging and brand loyalty, but a partial role in the impact of brand quality on customer loyalty. In this regard, the study establishes that brand equity is critical in formulating packaging and perceived product quality decisions to enhance brand loyalty in the drug industry. Again, brand quality plays a full role in the impact of packaging on brand loyalty, but partially in the interactions between packaging and brand equity. This confirms that perceived quality is important when designing packaging to support brand equity and loyalty in the drug industry.

Limitations and Directions for Further Research

Some limitations need to be resolved in the future studies to provide an in-depth understanding of the findings of this study. Herbal medicine encompasses herbs, materials, preparations and finished herbal products, but only finished herbal medicines were considered in this paper. Because of this, future research should include all the aspects of herbal products to obtain a holistic view of the herbal medicinal product packaging, perceived quality, equity and loyalty in the drug industry. Besides, herbal medicinal products are currently distributed online and in the in-store marketplace. This paper, however, collected data from the in-store market, and as a result, future investigations should include both online and in-store markets. Geographically, this paper was restricted to the Cape Coast metropolis in Ghana. It is recommended that future investigations should be extended to other parts of the world.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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