



# Enhancing Internal Marketing and Brand Equity in Ghana's Pharmaceutical Firms using the PRECEDE Framework

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**Abstract:** **Background:** Internal marketing and branding are essential for building strong brand equity within organisations. The shift in focus from traditional strategies to branding is now a key competitive tool for pharmaceutical companies. However, there is insufficient comprehension and successful execution of internal marketing and branding strategies in Ghana's pharmaceutical industry, especially concerning concerns regarding counterfeit medications and increasing foreign competition. This research examined how local pharmaceutical companies engage their staff through internal marketing and branding. **Methods:** This study employed a quantitative cross-sectional approach. The study used a multistage sampling technique to select 750 participants from five Ghanaian pharmaceutical companies. The data were collected in two phases (pretest and posttest). Data were collected from participants using both in-person and online questionnaires via a structured questionnaire. **Results:** The research indicated that internal marketing and branding significantly enhanced internal brand equity. Pre-intervention analysis demonstrated moderate, although statistically significant, correlations, suggesting a present but constrained influence. Post-intervention results indicated reinforced benefits, validating that organised internal methods significantly improved employees' brand understanding, commitment, and engagement. **Conclusion:** The intervention illustrated that internal strategies must be deliberately organized and constantly upheld to attain significant internal brand equity. These findings highlight the significance of employee-centric branding and marketing initiatives in strengthening internal company identity.

**Keywords:** Internal Marketing, Internal Branding, Brand Equity, Pharmaceutical Firms, PRECEDE Framework.

## INTRODUCTION

The pharmaceutical sector in Ghana has been a focal point within government-led healthcare reforms and industrial development initiatives. The COVID-19 epidemic highlighted the sector's strategic significance and revealed systemic weaknesses in the accessibility and cost of key medications <sup>[1,2]</sup>. In 2019, pharmaceutical sales amounted to USD 589 million and were anticipated to increase to USD 620 million by 2022, with predictions indicating a market value of USD 941 million by 2024, reflecting a compound annual growth rate of 9.8% <sup>[3]</sup>. This development reflects analogous growth patterns seen throughout sub-Saharan Africa, propelled mainly by heightened use of generic pharmaceuticals and public investments in healthcare infrastructure. Ghana's aspiration to establish itself as the pharmaceutical centre for the Economic Community of West African States (ECOWAS) underscores its strategic focus on regional leadership and self-sufficiency.

Notwithstanding these benefits, the extensive distribution of counterfeit and inferior medications persistently erodes public confidence in pharmaceutical products. The widespread occurrence of counterfeit medications, extensively documented in Ghanaian media, has elicited considerable apprehension among stakeholders, including the Ministry of Health, the Food and Drug Authority (FDA), healthcare professionals, and the general populace [4,5]. The issues are intensified by the prevalence of international pharmaceutical companies from nations like India and China, which leverage substantial brand recognition and effective marketing strategies. Low customer confidence in unbranded or regionally branded generics, which are often seen as inferior despite their affordability, exacerbates the dilemma.

In Ghana, numerous pharmaceutical companies prioritise product development and regulatory compliance, frequently neglecting to establish a unified internal brand. Domestic pharmaceutical companies experience disjointed internal communications, restricted training possibilities, and inadequate motivational frameworks [3]. Consequently, personnel may lack the proper awareness or involvement to uphold and fulfil the organisation's brand promise. In such instances, even well-meaning external marketing efforts are prone to failure. This establishes a disparity between the organisation's self-perception and the experiences of stakeholders, including healthcare professionals and consumers [6].

Consequently, to address these problems, Ghanaian pharmaceutical companies ought to build distinguished and distinctive brands to enhance public trust and loyalty [4]. Branding, which involves establishing a dependable identity that conveys trust, quality, and safety qualities that are especially crucial in the healthcare sector [7,8], has become a critical activity for pharmaceutical firms in Ghana. While branding could be internal and external, evidence suggests internal branding methods are essential for cultivating internal brand equity, which bolsters the organisation's legitimacy and competitiveness [9].

Internal marketing is the strategic approach of regarding employees as internal customers, ensuring they are sufficiently informed, taught, and motivated to align with the company's mission and brand values [10]. Internal marketing emphasizes alignment and engagement, whereas internal branding further integrates the organization's brand values into its culture, systems, and daily interactions [11,12]. It encompasses how employees assimilate the brand's identity and manifest it through compatible behaviours [13].

Literature indicates that internal branding can address challenges such as diminished morale, inconsistent service quality, and high employee turnover, therefore cultivating a staff that is both skilled and aligned with the brand [14-17]. Bahadur et al. (2020) argued that in the pharmaceutical sector, where trust and quality are essential, internal branding fosters a single organisational voice and a cohesive brand identity. Similarly, Merrilees et al. (2020) contend that efficient internal branding promotes leadership support, cultivates brand-focused training, and implements uniform visual and narrative communication. In the pharmaceutical industry, internal marketing fosters employee loyalty in a field where regulatory adherence, operational efficacy, and public perception are paramount [20].

In assessing internal branding, internal brand equity (IBE), which is a metric assessing employees' comprehension, conviction, and execution of the brand promise, has emerged as an essential benchmark. IBE includes brand awareness, dedication, allegiance, and internal communication [21,22]. [23] assert that robust IBE significantly influences customer trust, employee morale, regulatory adherence, and ultimately, business sustainability in

high-trust industries such as pharmaceuticals. Similarly, <sup>[24]</sup> indicated that high internal brand equity increases the likelihood that staff will provide consistent service, uphold ethical standards, and cultivate great brand experiences for patients and stakeholders. However, this concept remains inadequately explored within Ghana's pharmaceutical landscape. Many companies prioritize external factors such as market dynamics and competition while neglecting the internal mechanisms that influence brand integrity <sup>[6]</sup>. Considering the reputational hazards associated with counterfeit pharmaceuticals and public skepticism, establishing IBE is not merely advantageous but crucial for survival and sustained success <sup>[25]</sup>.

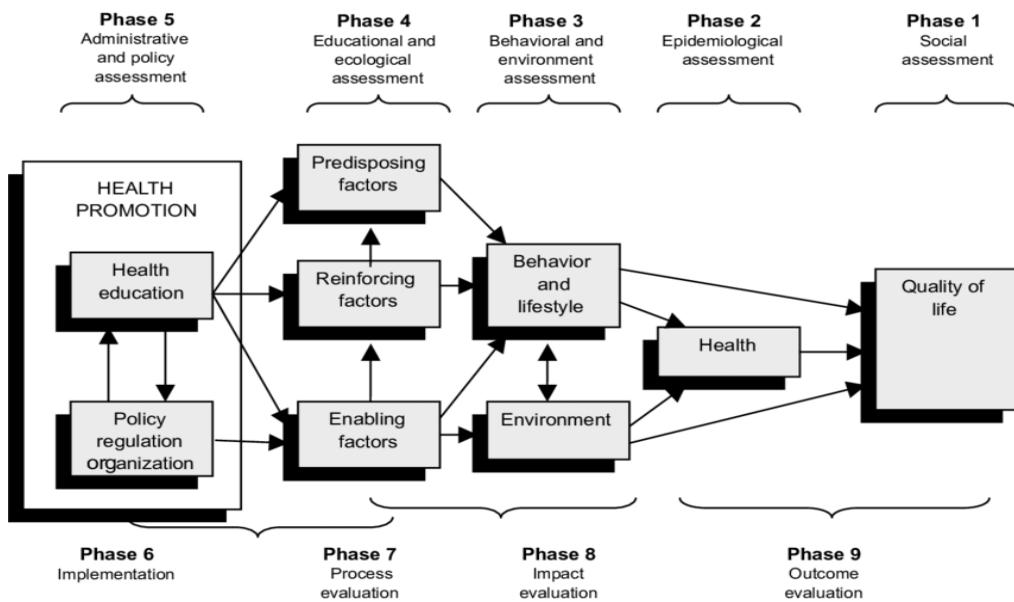
Scholars have suggested distinct parameters for evaluating internal marketing and branding strategies <sup>[26-29]</sup>, although these frequently exhibit considerable divergence. Contemporary research mostly emphasizes individual theoretical models, such as organisational resilience <sup>[25]</sup> and market orientation <sup>[30]</sup>, although it fails to incorporate a comprehensive intervention framework. Furthermore, prior research has concentrated exclusively on frontline employees, neglecting other office personnel, like medical sales reps <sup>[31]</sup>. Moreover, internal brand equity as a competitive strategy in Ghana's pharmaceutical sector has garnered limited scholarly attention, particularly in light of recent reports concerning counterfeit medications in the country.

This study employs the PRECEDE framework to establish a systematic approach for improving internal processes. The approach, traditionally employed in health promotion, provides a thorough perspective for enterprises to identify internal branding issues and execute specific actions <sup>[32,33]</sup>. This study applies the paradigm to Ghana's pharmaceutical sector, offering a context-specific, evidence-based methodology for enhancing internal brand equity via synchronized internal marketing and branding tactics.

## LITERATURE REVIEW

### **PRECEDE Framework**

The PRECEDE Framework is a methodical approach to identifying and satisfying a community's self-identified needs and desires. Predisposing, Reinforcing, and Enabling Constructs in Educational Diagnosis and Evaluation are acronyms for PRECEDE. In 1991, Green and Kreuter included Proceed in acknowledgement of the existence and necessity of health promotion interventions that go beyond traditional educational approaches to altering unhealthy behaviour <sup>[34]</sup>. Figure 1 depicts this framework.



**Figure 1: PRECEDE Framework of Health Programme Planning - 17**

Source: [35]

The PRECEDE Framework is an experimental model utilized for planning, rather than a definitive communication theory. The fundamental tenet of this concept is that behavior adjustment must be voluntary [36]. This framework aims to provide individuals with the knowledge, comprehension, skills, motivation, and community engagement necessary to enhance their quality of life [10].

Three categories of characteristics have been identified as pre-behavioral precursors that may influence health behavior. These predisposing factors or individual preferences (such as attitudes) offer a motivation or justification for behavioral modification [37]. Additional factors that may strengthen impacts encompass corporate culture, accolades, or reinforcements, which pertain to feedback from peers and coworkers in the professional environment. Incentives like commendation and social reinforcement facilitate the recurrence or continuation of behavior. Enabling factors, the third pre-behavioral concept, refer to the objective attributes of individuals, communities, and environments that facilitate or impede behavioral development.

### Internal Marketing (IM) and Internal Brand Equity (IBE) Value

[38] defines "internal marketing" as a management method that enables organizations to identify, train, and retain optimal employees by addressing their demands regarding task assignments. Researchers concur that internal marketing significantly influences individuals to adopt customer-like behaviors [39,40]. [41] assert that internal marketing can significantly influence a company's culture by affecting the attitudes and behaviors of its personnel. Similarly, [42] contend that internal brand equity helps mitigate a company's risk by enhancing staff morale, decreasing attrition, and augmenting productivity. The authors suggested that firms possessing substantial internal brand equity are more adept at enduring economic recessions and various adversities.

<sup>[43]</sup> shown that internal marketing enhances employee brand identification and loyalty, thereby improving employee brand performance. Nevertheless, this analysis determines that employee brand loyalty does not significantly buffer these relationships. The authors suggest that banks focus on internal marketing strategies that improve employee brand identification and loyalty to boost overall brand performance. <sup>[30]</sup> found a significant positive link between internal marketing and workers' entrepreneurial orientation, indicating that efficient internal marketing strategies cultivate employees' entrepreneurial spirit. The research demonstrated that enhancing internal marketing tactics can improve employee satisfaction, which in turn boosts customer satisfaction, thereby creating an environment favorable to entrepreneurial orientation in sports clubs.

<sup>[44]</sup> demonstrated that organizational resilience and employees' perceptions of technological innovations substantially enhance internal brand equity, encompassing elements such as brand orientation, internal brand knowledge, internal brand involvement, and internal brand commitment. The study determined that improving organizational resilience and addressing employee views of self-service technology are crucial for the effective formulation of internal branding strategies, which eventually bolster employee engagement and brand performance in the retail sector. <sup>[45]</sup> shown that internal marketing positively influences work satisfaction, organizational commitment, and organizational trust; however, it does not directly increase job performance. The research indicated that enhancing internal marketing tactics can improve employee attitudes and behaviors, therefore promoting better performance in public sector organizations. <sup>[46]</sup> assert that internal marketing methods significantly enhance affective commitment and job satisfaction across both sectors, with a more pronounced effect in the private sector. This leads to the hypothesis that:

- *H1: Internal marketing has a positive effect on internal brand equity.*

### **Internal Branding (IB) and Internal Brand Equity (IBE) Value**

According to <sup>[47]</sup>, brand equity is the integration of a brand's name, logo, symbol, and other brand characteristics that may confer advantages or liabilities to a company's products and services. The brand equity component outlined by <sup>[47]</sup> comprises brand loyalty, brand awareness, brand association, and perceived quality. According to <sup>[48]</sup>, brand participation is essential for analysing an individual's motivation toward a company's brand. In addition, participation is a motivating factor for comprehending customer attitudes toward items or brands <sup>[49]</sup>, and this idea extends to staff brand attitudes and how internal organisations level confidence in the brand. <sup>[50]</sup> indicated that the generation and dissemination of brand information influenced role clarity, brand knowledge, and commitment. Brand commitment influenced three employee-based brand equity (EBBE) advantages: brand citizenship behavior, staff retention intentions, and the dissemination of positive word-of-mouth. Role clarity and brand expertise served as important mediators. Therefore, to ensure sustainability, university administrators must engage in explicit verbal brand messaging and orientation, as well as implicit behaviors that convey brand reputation.

A study conducted by <sup>[46]</sup> examining the impact of IB on the brand loyalty of Pasargad Insurance employees in Iran demonstrated that IB significantly enhanced brand loyalty. Similarly, <sup>[51]</sup> found that IB influences organizational loyalty of frontline officers of selected

retail stores in Pakistan. However, the study found that there was no difference in the level of brand equity among customers. The findings of a survey by [52], conducted among retail employees in Sweden indicate that organizational resilience and employees' perceptions of technological innovations are essential for improving IBE, encompassing brand orientation, internal brand knowledge, internal brand involvement, and internal brand commitment.

[53] indicated that hospitals can cultivate Employee Brand Equity (EBE) through IB management, and that EBE has a beneficial impact on employee Organizational Citizenship Behavior (OCB) and Job Performance (JP). The study indicates that EBE exerts a more significant influence on public and organizational-level employee behavior compared to personal and individual-level employee behavior. EBE is effective when implemented in medical service settings. In the same vein, [54] indicated that internal brand management positively influences brand commitment, brand citizenship behavior, and sustainable competitive advantage. Furthermore, brand commitment positively influences brand citizenship behavior and lasting competitive advantage. Furthermore, brand citizenship behavior positively influences sustainable competitive advantage. Brand commitment and brand citizenship conduct serve as mediators between internal brand management and sustainable competitive advantage. Based on the above arguments, the following hypothesis is proposed.

- *H2: Internal branding has a positive effect on internal brand equity.*

## **METHODOLOGY**

### **Research Approach**

This study employed the quantitative research approach. [55] assert that quantitative approaches efficiently examine topics concerning prevalence, frequency, and relationships, rendering them highly relevant in social science research. The study employed a before-and-after approach, measuring exposures and outcomes simultaneously. The first time point is before the initiation of an intervention, and the second is after the intervention has begun. In this study design, a pre-test and a post-test are conducted for study participants and intervention and the results are evaluated by comparing the pre-test data to post-test data to identify any changes that can be attributed to the intervention.

### **The Intervention**

In Phase Two, a training module was developed as an intervention. The module's content was structured using internal marketing parameters identified from empirical literature reviews and aligned with cultural practices specific to each organization. The primary focus of the training module was to introduce protocols for effectively escalating employees' concerns related to internal marketing and branding within their respective organizations. The PRECEDE Framework (Predisposing, Reinforcing, and Enabling Constructs in Educational Diagnosis and Evaluation) was adopted as the module's guiding framework.

The training was implemented through structured seminars across various organizational sites, with due permission obtained from employers. After introducing the training module, quantitative data were collected over six months to monitor employees' adherence to the new protocols and evaluate the outcomes.

## Sample Size and Sampling Technique

The research population for this study comprised all 126 Pharmaceutical manufacturing companies in Ghana during the study period. From these study sites, 750 employees were selected on a pro-rata basis depending on their staff strength to constitute the final sample size for the study. <sup>[56]</sup> advises novice researchers to use large sample sizes as much as possible. <sup>[57]</sup> recommends a minimum sample size of 100, whereas <sup>[58]</sup> are of the view that the sample size should not be less than 200.

**Table 1: Sampling frame and sample size estimation**

Item	Study site (pharmaceutical company)	Location	Sampling frame (Estimated number of employees)	Sample size (number of employees sampled)	Pro rata sample per study site (percentage)	Study site sample per total sample size
1	Pokupharma	Kumasi	100	42	42%	6%
2	Amponsah-Efah Pharmaceuticals Limited	Kumasi	100	42	42%	6%
3	Tobinco Pharmaceuticals	Accra	500	208	42%	28%
4	Ernest Chemist Ltd.	Accra	800	333	42%	43%
5	Pharmanova	Accra	300	125	42%	17%
Total		5	1800	750	42%	100%

Source: Author's construct, 2022

The Research Advisors (2006) put forward a simple-to-use table on the required sample size, which gives researchers further and more informed guidance. From this table, given a margin of error of  $\pm 5$ , a population of between 500,000 and 10 million requires a sample size of 384 minimum (at 95% confidence level) and 663 minimum (at 99% confidence level). However, to allow various cultural factors at various study sites to be thoroughly investigated, a sample size of 750 employees were chosen for best results using the above guide. This compares favourably with the acceptable norms of 500, "very good" and 1,000 "excellent", proposed by <sup>[59]</sup>. To justify the adequacy of this sample size, the statistical formula

$$SS = \frac{z^2 \times p(1-p)}{e^2} \dots \dots \dots$$

Put forward by Smith (2013) determining minimum sample sizes for unknown (or very large) populations was also employed. Where; SS = Sample Size; Score from z-score tables at 99% confidence level Z-Score = 2.58; Standard deviation or expected variance in the responses P = 0.5; Margin of Error ME =  $\pm 5\% = 0.05$ . For large populations, the minimum sample size from this computation is 666 respondents. Given that the total number of

employees in the pharmaceutical sector is unknown, the sample size of 750 employees was deemed highly acceptable.

### **Sampling Techniques**

This research used a multistage approach for selecting the pharmaceutical companies and their branches due to the geographical dispersion within the study area (Greater Accra and Greater Kumasi metropolitan areas). Secondly, the pharmaceutical companies and their branches were selected using convenience sampling. Convenience sampling and purposive sampling were used to select the respondents who work in these five companies. Each person selected must be an employee of the pharmaceutical companies and may have worked with them for at least a year.

### **Data Collection**

Structured self-administered questionnaires were utilised, necessitating participants to fill out printed versions. Data was gathered before and after the intervention from the same participants across five selected pharmaceutical companies, encompassing a total of 750 employees. The Drop-off and Pick-up (DOPU) approach was employed to enhance data collecting. Throughout both rounds of the survey administration process, verbal communication was utilised to elucidate the study's aims and the significance of participants' engagement. Customised communication has been demonstrated to markedly improve response rates and data quality by promoting participant comprehension and involvement [60]. To guarantee prompt completion and collection of questionnaires, telephone and email reminders were systematically dispatched to respondents and organisational gatekeepers during both data collection phases [61].

### **Data Analysis**

Statistical procedures used in testing the research hypotheses included descriptive statistics, factor analyses, and path analyses. The statistical calculations were done by means of Statistical Product and Service Solutions (SPSS) version 24.0. Factor analysis was used to compare and find correlations between these factors and to reduce the number of variables in the model since the essence of data reduction is to remove highly correlated variables from the data file, and the purpose of structure detection is to examine the underlying relationships between the variables [57]. The statistical framework included simple descriptive data by way of tables and charts. These were analyzed by looking at the mean, range and standard deviation for simple descriptive, interpretative understanding of the results. Regression analysis was also done to show the joint and several implications of the independent variables on the dependent variables.

## **RESULTS**

### **Background Characteristics**

The gender distribution of the study participants is slightly balanced, with 370 males (49.3%) and 380 females (50.7%). The majority of participants were aged 20-40 years (53.7%),

reflecting a youthful workforce, although older age groups (51+) constituted 25.2%. Educational attainment was significant, with 76.6% possessing at least a bachelor's degree and 10.1% holding doctoral degrees. The work experience was diverse, with the majority (67.5%) possessing 1 to 10 years of experience. Regarding job rank, 46.8% were entry-level, 32.3% mid-level, and 20.9% senior-level, thereby encompassing opinions across several organizational tiers.

**Table 2: Demographic distribution of the participants**

Category	Characteristic	Frequency	Percent (%)
Gender	Male	370	49.3%
	Female	380	50.7%
	<b>Total</b>	<b>750</b>	<b>100.0%</b>
Age	20-30 years	222	29.6%
	31-40 years	181	24.1%
	41-50 years	158	21.1%
	51-60 years	113	15.1%
	60+ years	76	10.1%
Education	Senior High School	96	12.8%
	Professional Certificate	214	28.5%
	Bachelor's Degree	210	28.0%
	Master's degree	154	20.5%
	PhD	76	10.1%
Years of experience	Less than 1 year	104	13.9%
	1-3 years	152	20.3%
	4-6 years	203	27.1%
	7-10 years	151	20.1%
	More than 10 years	140	18.7%
Rank	Entry level	351	46.8%
	Mid-level	242	32.3%
	Senior level	157	20.9%

### Initial Analysis

The results of the normality test for the dataset are shown in Table 3, which includes metrics such as the mean, standard deviation, skewness, and kurtosis. The study indicated that all the items met the skewness and kurtosis criteria, therefore verifying that the dataset conformed to the expected characteristics of a normal distribution. The Cronbach's alpha results for the constructs assessed in the study demonstrate a robust level of internal consistency.

**Table 3: Descriptive statistics and normality test of the study variables (pre-intervention)**

	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach's Alpha
<b>Internal Marketing</b>				<b>2.70</b>	<b>0.76</b>	<b>1.270</b>	<b>1.191</b>	<b>0.927</b>
IM1	750	1	5	2.55	1.16	0.754	-0.239	
IM2	750	1	5	2.60	1.09	0.825	0.036	
<i>Brand Vision</i>				<b>2.58</b>	<b>1.00</b>	<b>1.135</b>	<b>0.784</b>	
IM3	750	1	5	2.58	0.99	0.675	0.249	
IM4	750	1	5	2.79	1.03	0.527	-0.370	
IM5	750	1	5	2.82	1.12	0.505	-0.659	
IM6	750	1	5	2.72	1.04	0.651	-0.293	
IM7	750	1	5	2.70	1.08	0.554	-0.480	
<i>Reward</i>				<b>2.72</b>	<b>0.75</b>	<b>1.181</b>	<b>1.008</b>	
IM8	750	1	5	2.66	1.10	0.574	-0.484	
IM9	750	1	5	2.73	1.04	0.652	-0.294	
IM10	750	1	5	2.71	1.08	0.537	-0.512	
IM11	750	1	5	2.79	1.03	0.527	-0.361	
IM12	750	1	5	2.82	1.12	0.501	-0.668	
IM13	750	1	5	2.72	1.04	0.651	-0.304	
IM14	750	1	5	2.69	1.08	0.553	-0.472	
IM15	750	1	5	2.67	1.11	0.571	-0.494	
<i>Development Program</i>				<b>2.72</b>	<b>0.81</b>	<b>1.130</b>	<b>0.673</b>	
<b>Internal Branding</b>				<b>2.73</b>	<b>0.71</b>	<b>1.029</b>	<b>0.524</b>	<b>0.850</b>
IB1	750	1	5	2.78	1.15	0.607	-0.610	
IB2	750	1	5	2.64	1.04	0.541	-0.193	
IB3	750	1	5	2.61	1.07	0.712	-0.190	
<i>Knowledge</i>				<b>2.68</b>	<b>0.81</b>	<b>1.128</b>	<b>0.986</b>	
IB4	750	1	5	2.66	1.06	0.775	-0.243	
IB5	750	1	5	2.73	1.02	0.526	-0.565	
IB6	750	1	5	2.75	0.99	0.549	-0.283	
<i>Involvement</i>				<b>2.72</b>	<b>0.78</b>	<b>0.943</b>	<b>0.536</b>	
IB7	750	1	5	2.98	1.11	0.390	-0.905	
IB8	750	1	5	2.67	1.07	0.771	-0.256	

IB9	750	1	5	2.73	1.02	0.526	-0.565	
<i>Commitment</i>				<b>2.79</b>	<b>0.86</b>	<b>0.834</b>	<b>-0.108</b>	
<hr/>								
<b>Internal Brand Equity</b>				<b>2.70</b>	<b>0.73</b>	<b>1.097</b>	<b>0.745</b>	<b>0.898</b>
IBE1	750	1	5	2.78	1.12	0.621	-0.575	
IBE2	750	1	5	2.58	0.97	0.702	-0.004	
IBE3	750	1	5	2.75	1.01	0.507	-0.360	
<b>Awareness</b>				<b>2.70</b>	<b>0.76</b>	<b>1.052</b>	<b>0.602</b>	
IBE4	750	1	5	2.68	1.15	0.649	-0.447	
IBE5	750	1	5	2.74	1.06	0.698	-0.340	
IBE6	750	1	5	2.68	1.05	0.593	-0.320	
<b>Association</b>				<b>2.70</b>	<b>0.89</b>	<b>1.106</b>	<b>0.644</b>	
IBE7	750	1	5	2.78	1.12	0.618	-0.577	
IBE8	750	1	5	2.56	0.96	0.694	0.021	
IBE9	750	1	5	2.75	1.01	0.494	-0.365	
<b>Loyalty</b>				<b>2.70</b>	<b>0.75</b>	<b>1.051</b>	<b>0.622</b>	
IBE10	750	1	5	2.69	1.15	0.646	-0.456	
IBE11	750	1	5	2.74	1.06	0.693	-0.343	
IBE12	750	1	5	2.67	1.05	0.567	-0.346	
<b>Brand Commitment</b>				<b>2.70</b>	<b>0.89</b>	<b>1.082</b>	<b>0.614</b>	

### Factor Loadings

The Brand Vision (BV) construct comprises two items, IM1 and IM2, with loadings of 0.837 and 0.698, respectively. These results demonstrate a strong relationship between these items and the concept of brand vision, highlighting their importance in capturing an organization's aspirations and strategic goals. Similarly, Reward Systems (RS), with three items (IM4, IM5, and IM6) showing high loadings ranging from 0.544 to 0.950, underscores the effectiveness of reward mechanisms in recognizing and incentivizing employees.

Development Programs (DP) are well-represented by four items (IM9, IM11, IM12, IM13) with loadings from 0.547 to 0.950, reflecting the significance of structured initiatives aimed at enhancing employee growth and capacity. Similarly, Internal Branding (IB) includes four items (IB1, IB3, IB4, IB7) with factor loadings between 0.643 and 0.852, demonstrating the importance of aligning employees with brand values to foster a unified organizational identity.

The construct of Internal Brand Equity (IBE), comprising five items (IBE3, IBE4, IBE7, IBE8, IBE10), has loadings between 0.572 and 0.876. These values indicate a strong role for brand equity in driving employee engagement and brand commitment.

**Table 4: CFA factor loading (pre-intervention)**

	BV	RS	DP	IB	IBE
IM1	.837				
IM2	.698				
IM4		.950			
IM5		.544			
IM6		.945			
IM9			.943		
IM11			.950		
IM12			.547		
IM13			.946		
IB1				.643	
IB3				.839	
IB4				.852	
IB7				.764	
IBE3					.572
IBE4					.875
IBE7					.748
IBE8					.753
IBE10					.876

Note: BV = Brand Vision, RS = Reward Systems, DP = Development Programs, IB = Internal branding, IBE = Internal Brand Equity

### Model Fit Indices for CFA

These indices in Table 5 collectively provide a comprehensive evaluation of model fit, ensuring that the CFA model accurately represents the data and aligns with the theoretical constructs under investigation. By utilising a mix of these fit indices, researchers can gain an advanced understanding of their model's performance and make necessary adjustments to improve its accuracy and reliability. Table 5 provides a summary of the model fit indices.

**Table 5: Summary of model fit measures (pre-intervention)**

Measure	Estimate	Threshold	Interpretation
CFI	0.913	>0.95	Acceptable
SRMR	0.06	<0.08	Excellent
RMSEA	0.037	<0.06	Excellent

GFI	0.920	>0.90	Excellent
AGFI	0.927	>0.90	Excellent
PGFI	0.922	>0.90	Excellent
NFI	0.941	>0.90	Excellent
TLI	0.953	>0.90	Excellent

## Path Analysis

### *Path Analysis of Structural Equation Model: Direct Effects*

A path diagram was employed to graphically represent the hypothesized relationships among the variables, effectively illustrating both direct and indirect effects. Parameter estimation, including path coefficients, was conducted using Maximum Likelihood Estimation (MLE).

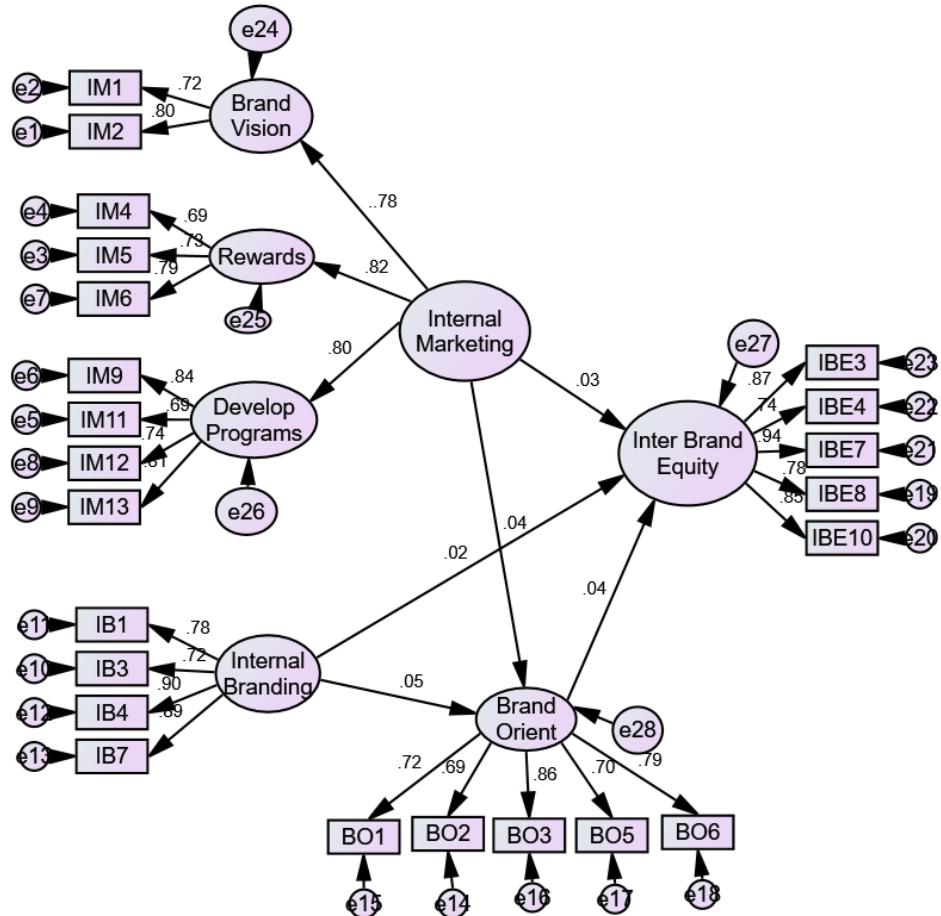
The path from internal marketing to internal brand equity is also positively estimated ( $\beta = 0.034$ ,  $se = 0.008$ ,  $CR = 4.250$ ). The p-value is also 0.000, which signifies a statistically significant and positive relationship. Internal branding's impact on internal brand equity is represented by a moderate estimate ( $\beta = 0.022$ ,  $se = 0.025$ ,  $CR = 0.880$ ). The p-value is 0.000, indicating statistical significance, though the effect size is relatively small.

The following hypotheses were tested:

- H1: Internal marketing has a positive effect on internal brand equity
- H2: Internal branding has a positive effect on internal brand equity

**Table 6: Summary of Model Path Analysis of Structural Equation Model of Direct Effects (pre-intervention)**

Direct Paths	Estimate	S.E.	CR	p-value	Decision
H1: Internal Marketing $\square$ Internal Brand Equity	.034	.008	4.250	0.000	Accepted
H2: Internal Branding $\square$ Internal Brand Equity	.022	.025	0.880	0.000	Accepted



**Figure 2: SEM results of direct effect path analysis (pre-intervention)**

## Post-Intervention Results

The Post-test Results section of this study delineates the outcomes of the intervention executed via the PRECEDE framework, designed to evaluate the influence of internal marketing and branding strategies on internal brand equity within Ghana's pharmaceutical sector.

## Descriptives

The descriptive statistics for the variables in the study reveal the central tendency and variability of the data. The mean values suggest that respondents generally perceive the constructs of internal brand equity ( $M = 3.72$ ), internal marketing ( $M = 3.89$ ), and internal branding ( $M = 3.65$ ) positively, with all variables indicating a favorable outlook. These results confirm that the instruments used in the study demonstrate good reliability, suggesting that the items within each scale are consistent in measuring the intended constructs.

**Table 7: Descriptive statistics and normality test of the study variables (post-intervention)**

	N	Min	Max	Mean	SD	Skewness	Kurtosis	Cronbach's $\alpha$
<b>Internal Marketing</b>				<b>3.74</b>	<b>0.38</b>	<b>1.179</b>	<b>1.706</b>	<b>0.898</b>
IM1	750	3	5	3.75	0.63	0.256	-0.648	
IM2	750	3	5	3.75	0.62	0.217	-0.595	
<b>Brand Vision</b>				<b>3.75</b>	<b>0.51</b>	<b>0.998</b>	<b>0.872</b>	
IM3	750	3	5	3.64	0.59	0.323	-0.681	
IM4	750	3	5	3.71	0.60	0.229	-0.604	
IM5	750	3	5	3.79	0.61	0.154	-0.520	
IM6	750	3	5	3.75	0.59	0.113	-0.481	
IM7	750	3	5	3.75	0.58	0.092	-0.459	
<b>Reward Systems</b>				<b>3.73</b>	<b>0.39</b>	<b>1.013</b>	<b>1.183</b>	
IM8	750	3	5	3.75	0.58	0.099	-0.459	
IM9	750	3	5	3.75	0.59	0.130	-0.497	
IM10	750	3	5	3.75	0.58	0.084	-0.448	
IM11	750	3	5	3.71	0.60	0.228	-0.605	
IM12	750	3	5	3.79	0.61	0.157	-0.527	
IM13	750	3	5	3.75	0.59	0.115	-0.478	
IM14	750	3	5	3.75	0.58	0.090	-0.463	
IM15	750	3	5	3.76	0.59	0.104	-0.462	
<b>Development Programs</b>				<b>3.75</b>	<b>0.41</b>	<b>0.856</b>	<b>1.110</b>	
<b>Internal Branding</b>				<b>3.77</b>	<b>0.35</b>	<b>0.848</b>	<b>0.894</b>	<b>0.782</b>
IB1	750	3	5	3.82	0.62	0.146	-0.540	
IB2	750	3	5	3.66	0.59	0.271	-0.661	
IB3	750	3	5	3.75	0.58	0.097	-0.462	
<b>Knowledge</b>				<b>3.74</b>	<b>0.42</b>	<b>0.772</b>	<b>0.852</b>	
IB4	750	3	5	3.81	0.56	-0.010	-0.205	
IB5	750	3	5	3.76	0.54	-0.101	-0.276	
IB6	750	3	5	3.70	0.58	0.146	-0.594	
<b>Involvement</b>				<b>3.76</b>	<b>0.40</b>	<b>0.481</b>	<b>0.503</b>	
IB7	750	3	5	3.84	0.61	0.112	-0.468	
IB8	750	3	5	3.81	0.57	-0.005	-0.211	
IB9	750	3	5	3.76	0.54	-0.101	-0.276	

<i>Commitment</i>				<b>3.80</b>	<b>0.42</b>	<b>0.490</b>	<b>0.410</b>	
<hr/>								
<b>Internal Brand Equity</b>				<b>3.75</b>	<b>0.36</b>	<b>0.981</b>	<b>1.024</b>	<b>0.845</b>
IBE1	750	3	5	3.82	0.60	0.104	-0.428	
IBE2	750	3	5	3.71	0.54	-0.058	-0.534	
IBE3	750	3	5	3.70	0.58	0.149	-0.588	
<i>Awareness</i>				<b>3.74</b>	<b>0.38</b>	<b>0.616</b>	<b>0.915</b>	
IBE4	750	3	5	3.78	0.63	0.205	-0.605	
IBE5	750	3	5	3.78	0.59	0.103	-0.430	
IBE6	750	3	5	3.73	0.58	0.121	-0.525	
<i>Association</i>				<b>3.76</b>	<b>0.44</b>	<b>0.995</b>	<b>1.162</b>	
IBE7	750	3	5	3.82	0.60	0.107	-0.434	
IBE8	750	3	5	3.71	0.54	-0.079	-0.579	
IBE9	750	3	5	3.70	0.58	0.161	-0.599	
<i>Loyal</i>				<b>3.74</b>	<b>0.38</b>	<b>0.609</b>	<b>0.888</b>	
IBE10	750	3	5	3.78	0.63	0.201	-0.601	
IBE11	750	3	5	3.78	0.59	0.106	-0.436	
IBE12	750	3	5	3.72	0.58	0.110	-0.534	
<i>Brand Commitment</i>				<b>3.76</b>	<b>0.44</b>	<b>0.996</b>	<b>1.188</b>	

### Factor Analysis

These CFA results confirm the robustness and multidimensionality of the constructs under study, providing a strong foundation for further analysis and interpretation of the relationships between internal marketing, branding, brand equity, and organisation culture.

**Table 8: Results of CFA (post-intervention)**

	RD	DP	KN	CO	AW	AS	LO	BC
IM3	.847							
IM4	.742							
IM5	.878							
IM7	.856							
IM10		.782						
IM11		.853						
IM12		.789						

IM13		.857						
IM14		.831						
IB2			.853					
IB4			.784					
IB5			.882					
IB7				.840				
IB8				.731				
IB9				.872				
IBE1					.862			
IBE3					.749			
IBE4						.852		
IBE5						.896		
IBE6						.783		
IBE7							.835	
IBE8							.878	
IBE9							.791	
IBE11								.836
IBE12								.809
CW1								
CW2								
CW3								
CW8								
CW11								
CW12								
CW14								
CW16								
CW17								

Note: RD= Rewards; DP= Development Programs; KN= Knowledge; CO= Commitment; AW= Awareness; AS= Associations; LO=Loyalty; BC= Brand Commitment

### Model Fit Indices for CFA

These indices in Table 4.14 collectively provide a comprehensive evaluation of model fit, ensuring that the CFA model accurately represents the data and aligns with the theoretical constructs under investigation. By utilising a mix of these fit indices, researchers can gain an advanced understanding of their model's performance and make necessary adjustments to improve its accuracy and reliability. Table 4.14 provides a summary of the model fit indices.

**Table 9: Summary of model fit measures (post-intervention)**

Measure	Estimate	Threshold	Interpretation
CFI	0.953	>0.95	Excellent
SRMR	0.051	<0.08	Excellent
RMSEA	0.031	<0.06	Excellent
GFI	0.943	>0.90	Excellent
AGFI	0.916	>0.90	Excellent
PGFI	0.931	>0.90	Excellent
NFI	0.927	>0.90	Excellent
TLI	0.946	>0.90	Excellent

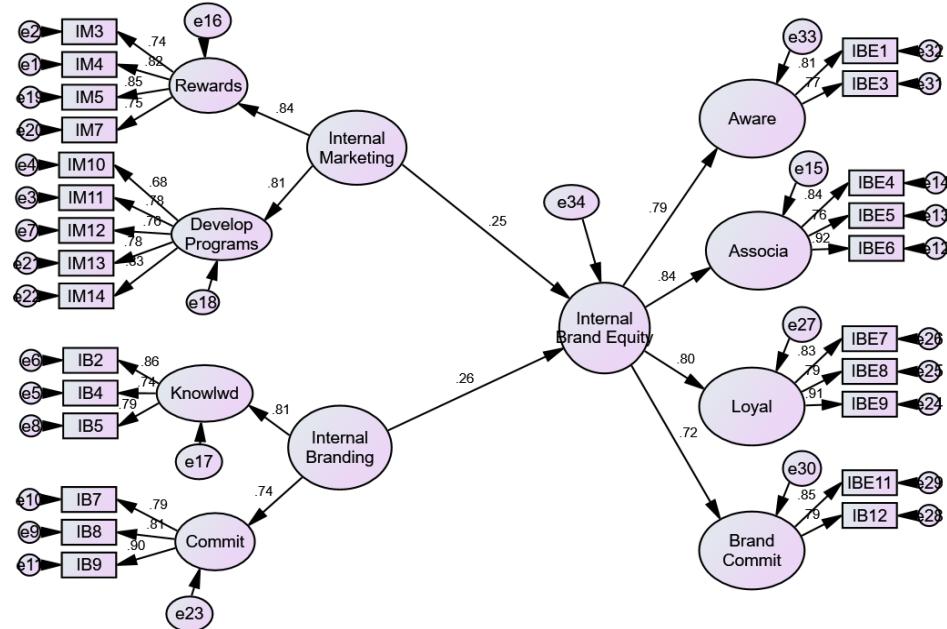
### Path Analysis (Post-intervention)

The results presented in Table 4.15, which represent the post-intervention path analysis indicate significant relationships between the key variables. The first path, from Internal Marketing to Internal Brand Equity, has a positive estimate ( $\beta = 0.254$ ,  $se = 0.030$ ,  $C.R. = 8.467$ ,  $p < 0.05$ ). The large  $C.R.$  value further reinforces the robustness of this relationship, and the very low  $p$ -value indicates that the effect is highly statistically significant.

Similarly, the path from Internal Branding to Internal Brand Equity also shows a positive and significant relationship ( $\beta = 0.263$ ,  $se = 0.032$ ,  $C.R. = 8.219$ ,  $p < 0.05$ ). Like the previous path, the results are statistically significant and suggest that efforts to strengthen the internal branding within Ghanaian pharmaceutical firms lead to enhanced internal brand equity.

**Table 10: Path analysis (post-intervention)**

Direct Paths	Estimate	S.E.	C.R.	p-value
Internal Marketing $\square$ Internal Brand Equity	.254	.030	8.467	0.000
Internal Branding $\square$ Internal Brand Equity	.263	.032	8.219	0.000



**Figure 3: SEM results of direct effect path analysis (post-intervention)**

## **DISCUSSION**

The pre-intervention findings demonstrated a statistically significant correlation between internal marketing and internal brand equity, suggesting that prior to any formal intervention, internal marketing initiatives were favorably influencing employees' opinions of brand value. The found effect size was moderate, indicating that although internal marketing initiatives including communication, training, and motivating tactics were present, they were probably informal, inconsistent, or insufficiently integrated into overarching organizational processes. Within the PRECEDE framework, this indicates that the current enabling components were available but not fully leveraged. Internal marketing may have fostered awareness and engagement; nevertheless, it lacked the strategic depth necessary to elicit significant behavioral change.

Subsequent to the intervention, the correlation between internal marketing and internal brand equity markedly intensified, validating that a systematic and deliberate strategy can enhance employee-brand alignment. Post-intervention results indicated enhancements in reward systems and staff development, which are crucial for enabling employees to embody the brand's values. This corroborates the findings of <sup>[38]</sup> and <sup>[39]</sup>, who assert that internal marketing fosters cultural alignment and motivates employees to engage in customer-centric and brand-consistent behaviors. The influence of internal marketing on fostering trust, contentment, and commitment, as demonstrated by <sup>[46]</sup> and <sup>[45]</sup>, is apparent in the post-intervention transition. These enhancements illustrate the PRECEDE framework's assertion that interventions aimed at organizational systems can yield quantifiable alterations in individual behaviors and perceptions.

The enhancement corresponds with research conducted by [30] and [43], which emphasized that internal marketing fosters employee happiness and brand identification, both of which are essential to internal brand equity. This study demonstrates that

methodical implementation of internal marketing through leadership alignment, staff appreciation, and capacity building elevates it beyond mere communication to serve as a revolutionary catalyst. This transition from informal or fragmented practices to organized interventions exemplifies the PRECEDE framework's tenet of employing targeted enabling mechanisms to promote enduring change. The notion that internal marketing favorably influences internal brand equity is acknowledged, substantiated by prior associations and enhanced post-intervention improvements.

Prior to the intervention, internal branding demonstrated a statistically significant albeit comparatively smaller impact on internal brand equity. Despite the presence of branding messaging and internal engagement methods, their limited impact indicates a deficiency in intensity or consistency. From the PRECEDE perspective, internal branding at this level served mostly as a latent reinforcing factor offering intermittent reinforcement of brand ideals rather than a consistent foundation for behavioral alignment. Although employees understood the brand's vision, the superficiality of branding engagement hindered their capacity to completely embody and promote it. This discovery corresponds with <sup>[50]</sup>, who emphasize that information is inadequate without role definition and emotional commitment to translate awareness into behaviors aligned with the brand.

Post-intervention, internal branding exhibited a more robust and cohesive impact on internal brand equity. Augmented initiatives in brand information dissemination, employee engagement, and commitment cultivation facilitated a deeper integration of brand values. The findings corroborate the observations of <sup>[42]</sup> and <sup>[44]</sup> indicating that internal branding substantially enhances brand equity by promoting resilience, shared meaning, and cultural alignment. Moreover, <sup>[48]</sup> emphasized the significance of brand engagement, demonstrating its impact on enhancing brand association, loyalty, and commitment, as reflected in the post-intervention advancements. Internal branding transitioned from a marginal instrument to a core approach, functioning as both a reinforcing and enabling element inside the PRECEDE framework, capable of cultivating enduring brand-supportive behaviors.

This change corroborates the empirical findings of <sup>[53]</sup> and <sup>[46]</sup>, which indicate that internal branding improves both brand loyalty and organizational citizenship behaviors, as well as job performance. The research parallels the findings of <sup>[51]</sup> and <sup>[62]</sup>, who underscored the strategic significance of brand commitment and brand citizenship behavior in cultivating sustained internal brand equity. This study demonstrates that the deliberate reinforcement of brand values via internal campaigns, leadership alignment, and employee appreciation facilitated a stronger employee connection with the brand. Consequently, the second hypothesis is affirmed. The transition from a minimal pre-intervention effect to a pronounced post-intervention outcome demonstrates that systematic internal branding interventions, based on the PRECEDE model, can produce significant gains in internal brand equity within pharmaceutical firms.

## CONCLUSION

This study examined the influence of internal marketing and internal branding on internal brand equity in Ghana's pharmaceutical companies, employing the PRECEDE framework to direct the analysis. The results from both pre- and post-intervention phases indicate that internal marketing and internal branding substantially affect internal brand equity, with

significant enhancements observed after the intervention. Internal marketing served as a facilitative element, aligning staff motivation and growth with brand objectives, whereas internal branding functioned as both a facilitative and reinforcing mechanism, enhancing employee commitment, engagement, and brand awareness. The intervention illustrated that internal strategies must be deliberately organized and constantly upheld to attain significant internal brand equity. The transition from minimal pre-intervention benefits to significant post-intervention outcomes indicates that ad hoc or informal internal branding initiatives are inadequate. A systematic and continuous approach is necessary to engage employees in ways that result in brand-consistent actions. These findings highlight the significance of employee-centric branding and marketing initiatives in strengthening internal company identity. Future research may investigate the long-term viability of these initiatives and analyze how organizational context influences internal branding results.

## **RECOMMENDATION**

Pharmaceutical firms should institutionalize internal marketing and branding as fundamental organizational strategy. Internal marketing initiatives should include organized reward systems, employee development, and clear communication to enhance staff alignment with company values. Internal branding must emphasize the reinforcement of brand awareness, dedication, and participation via ongoing communication and leadership involvement. Leaders must exemplify actions that correspond with the brand to instill brand culture throughout all tiers. Organizations should implement regular assessments of internal brand equity to track success and modify tactics as necessary. Consistent internal initiatives will enhance employee brand engagement and foster long-term organizational success and resilience.

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