

# A Study on Business Strategy Model for Private Label Brands in the Digital Era

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## ABSTRACT

Modern Retail – Private label brands are reshaping the retail landscape in an era of digital transformation. This study provides a complete analysis of private label brand strategies in the digital era by looking into how they have evolved, what consumers believe about them, and how they affect retailer performance. This research aims to construct a conceptual framework for the effective management of private label products in the digital era that combines digital capabilities as well as consumer, product, and retailer factors. Quantitative surveys (n=384), qualitative interviews, and focus groups were used. This paper uses structural equation modelling to test hypothesized relationships. Indeed, results highlight a very significant positive relationship between perceived quality and private label purchase intention ( $r$  of 0.721,  $p < 0.001$ ). The researcher's intuitive inference that introducing premium private labels would positively affect retailer profitability was verified ( $\beta = 0.287$ ,  $p < 0.001$ ). Results show that digital marketing capabilities positively moderated the relationship between perceived quality and purchase intention ( $\beta = 0.143$ ,  $p = 0.003$ ). Retailers must upgrade the quality and effectively deliver their message across all channels. The success of premium private labels opens up opportunities for portfolio expansion, and the significant moderating effect of digital capabilities indicates that investment in digital marketing capabilities is needed on a sustained basis. First, this study extends the literature by presenting an integrated framework of private label management in the digital era to underline the interaction between traditional retail strategies and emerging digital capabilities.

**Keywords:** Private Labels, Digital Marketing, Brand Equity, Omnichannel Retailing, Consumer Perceptions, Retailer Performance

## 1. INTRODUCTION

The landscape of retail has undergone a significant transformation over the past few decades, with private label brands emerging as a formidable force in the market. These are known as store brands or house brands and are created, marketed and owned by retailers (Kumar & Steenkamp, 2007). The shift from considering private labels as mere copies of national brands at a lower price level on the one hand and emerging independent brands on the other is a turning point in retail concepts and purchasing patterns.

Initially, private labels were launched to provide cheaper substitutes but were also seen as offering less quality than national brands (Hoch & Banerji, 1993). However, the current marketplace has seen the evolution of these brands in the retail sector in a remarkable way. To be consumer attractive, retailers have tactfully redeployed private label brands, providing improved quality, new packaging, and unique selling propositions that appeal to various categories of consumers (Ailawadi & Keller, 2004).

The trajectory of private label development can be conceptualized in three distinct phases:

- 1. Generic products (the 1970s-1980s):** These are usually characterized by low actual packaging and positioning the product as the lowest in the market.
- 2. Copycat brands (1980s-1990s):** Non-franchise outlets that resembled national brands, yet they were sold at lower prices.
- 3. Value-added brands (1990s-present):** Their clear focus on quality, innovation, and distinct positioning puts them in direct competition with luxury national brands (Geyskens et al., 2010).

This evolution fits well within a wider trend in retail strategy where private labels are used as weapons in the fight against price and customer attrition (Ailawadi et al., 2008). Hence, they have even more strategic significance since they can enhance retailer margins and bargaining power against national brand manufacturers and offer consumers higher value propositions (Steenkamp et al., 2010).

### 1.1 Growth of Private Labels in the Digital Retail Environment

The current change through the introduction of digital technology affects the retail industry and private label brands. Widespread internet selling via e-commerce platforms, social media, and data analytics have changed the patterns of consumers and selling strategies, enhancing and rapidly evolving private labels (Gielens & Steenkamp, 2019).

Several factors contribute to the burgeoning prominence of private labels in the digital era:

1. **Enhanced consumer access to information:** Convenience factors mean that consumers can compare products easily through digital platforms, and this may lower the perceived risk associated with a decision to purchase private label products (Kwon et al., 2008).
2. **Personalization capabilities:** Big data enables retailers to successfully design and market their private label products to different segments and create value (Kumar et al., 2017).
3. **Direct-to-consumer (D2C) models:** Indirectly, digital channels help develop consumers' relationships with retailers, ruling out the flow of middlemen to enhance the position of private labels (Gielens et al., 2021).
4. **Omnichannel integration:** Cleaning the boundary between online and offline context also holds opportunities for creating integrated private label experiences across the relevant touchpoints (Verhoef et al., 2015).
5. **Social media influence:** Coelho et al. (2019) identified two sources of customer-generated content as new ways of creating private label recognition and trust — users' posts and influencer marketing.

### 1.2 Research Objectives

In light of the evolving landscape of private labels in the digital retail environment, this study aims to address several critical research objectives:

1. To analyse the evolution and current trends in private label strategies, with a particular focus on digital retail contexts.
2. To examine factors influencing consumer acceptance of private labels, considering both traditional and digital touchpoints.
3. To evaluate the impact of private labels on retailer performance and brand equity in an omnichannel environment.
4. To develop a conceptual framework for effective private label management that integrates digital capabilities and traditional retail strategies.

### 1.3 Significance of the Study lies in its potential to:

1. Create more continuity and a link between traditional private label literature and newer concepts and speculations about digital retail environments, giving today's managers a more profound understanding of current private label management.
2. Provide practical knowledge about the efficiency of digital tactics to achieve the goals of developing private labels and consumer involvement.
3. Helping build more complex groundbreaking theories to explain the organization and management of private labels in the digital environment.
4. Offer practical recommendations for retailers and brand managers who must cope with the challenges and take advantage of digitalization's possibilities in the concept of private labels.

## 2. LITERATURE REVIEW

### 2.1 Evolution of Private Label Strategies

The execution path of private label strategies has not been linear due to the changing face of retail and consumer trends in the last few decades. This evolution passes through several stages, from simple, cost-effective substitutes to complex brands on their own.

A seminal study by Kumar and Steenkamp (2007) delineated four private-label strategies. The major strategic group classifications are innovative, imitative, differentiated, and niche. In this framework, the author presented the strategic possibilities that retailers have regarding the placement of their private labels. However, it is important to pose some questions on the relevance of such a model to the modern environment of digital retailing.

Gielens et al. (2021) discussed recent advancements in private label strategies focusing on digital change. Based on their study, they discovered that because of e-commerce and omnichannel retailing, the strategies of positioning the traditional private label have changed. Although this research gave some understanding of the effects of digital channels on managing private labels, it needed to examine an opportunity for using data-driven personalization for private label products. Moreover, the study design, which largely included large-scale formats in developed economies, restricts its use in emerging market

scenarios. Following Gielens et al., the present research proposal is designed to develop prior studies by including various retail contexts and focusing on developed analytics' contribution to private label management.

Another new concept identified in the article on private label strategy is the concept of premium private label. Using the Ter Braak et al. (2021) study, the authors assessed the premium private label introductions across several European nations. They found that high-quality private brands can help retailers achieve greater differentiation and operating profit. However, by only providing results from European markets, the generality of the conclusions is questionable for other cultures and markets. The current research will overcome this limitation by looking at premium private-label positioning in various other markets, including emerging ones.

## 2.2 Consumer Perceptions and Acceptance of Private Labels

An important aspect of private label learning is that consumers' awareness about a particular private label brand and their acceptance level have been subject to rigorous empirical analysis. It is imperative to identify the driver that determines consumers' acceptance of private brands to ensure the right marketing strategies are adopted in an effort to strengthen brand image.

In a current study, Rubio and his colleagues (2019) also looked at the effect of social media presence on the perceived quality of private-label brands. Thus, they concluded that positive user-generated content would improve perceived quality and purchase intention regarding private labels. Although this study gave insights into the role of social media in private label perception, it failed to capture the extent to which negative information as a result of user-generated content can wreak havoc on brand equity. Moreover, it also has a major methodological drawback: the study was carried out exclusively using one social media; it needs to present a versatile analysis of the digital environment. Hence, the present study intends to proceed from Rubio et al.'s study to investigate a broader set of digital touchpoints and corresponding outcomes in perceiving private labels.

Lifestyle, consumer characteristics, and behaviour have been known to be critical to private label acceptance. In a study in this area, Martos-Partal et al. (2020) sought to understand the link between consumer value consciousness and private-label purchases. Their studies suggested that value-sensitive consumers are more likely to buy private labels, but this relationship depends on category involvement. Although this study provided a good background on the impact of consumer characteristics on private label acceptance, it did not go further to understand how digital marketing techniques can mediate or moderate these relationships. The present research intends to contribute to this investigation by exploring how specific online messages affect specific segments' private label views.

## 2.3 Impact of Private Labels on Retailer Performance

Given private labels' role as strategic players in the retail industry, the performance of retailers by private labels is one of the most researched areas. Therefore, it is important to examine how private label strategies relate to different concepts of retailer performance in order to define strategies for branding and resource allocation.

Thus, another relevant work by Gielens et al. (2021) investigated the influence of private label penetration for evaluating business performance in the age of digitalization. They argued that while private label share and retailer profitability are related, the relationship is curvilinear and characterized by an appropriate amount of private label penetration that differs across the retail formats and categories. Although this study offered rich information about the challenging nature of private label management, it needed to investigate data-driven opportunities to comprehensively optimize the private label offering. Also, because the research focused mainly on financial data, it is not aimed at investigating the effects of private labels on specific customer characteristics. Thus, the present study proposes extending from Gielens et al.'s work by using more detailed information on customer behaviour and analyzing how private label strategies can benefit from applying sophisticated analytics.

The influence of premium private brands on the trader's performance has become an urgent issue. Ter Braak et al. (2021) examined the impact of premium private label introduction on the financial performance of multiple European retailers. According to their studies, premium private labels' impact indicated that premium private labels create a very positive impact on retailer margins and overall profitability. However, it is also important to note that this study and its conclusions are based solely on the results obtained from developed markets, while the generalization of the results obtained for emerging economies is questionable. Therefore, The current study proposes to fill this gap by analyzing the effects of premium private labels on performance in a broader range of market environments.

## 2.4 Digital Marketing Strategies for Private Labels

The current emergence of new digital technologies has brought about significant changes in the retail marketing environment, which is likely to have an overall impact on the management of private labels. Comprehending how best to apply digital promotion techniques for discrete brands is especially important to retailers desiring to reinforce and uplift their brands.

Another work done during the past year by Kumar et al. (2021) used empirical analysis to investigate the moderating effect of personal digital marketing on private-label consumer purchasing behaviour. Their study indicated that integrating enhanced customer data with personalized private label promotion can greatly increase promotional effectiveness, especially premium private labels. Although this research yielded an understanding of the possibilities of advanced analytics in private label marketing, it did not explore the ethical concern of targeted marketing as the efficient use of distributed data analysis algorithms. Moreover, there are a few specific drawbacks associated with the conducted research that concern the Study's methodological approach and conditions of its implementation; namely, the analysis was based on the data gathered within only one retailer's digital environment, which prevents distinguishing general trends and regularities in the development of other actual retail contexts. Study will further develop Kumar et al.'s work by exploring various digital marketing tactics across different retail outlets and reviewing the ethical issues of personal selling.

Enhancing the link between digital and physical retailing in private label marketing has attracted more attention. Verhoef et al. (2022) examined how omnichannel marketing strategies influence private label performance. Their results meant that if the Internet and offline marketing touchpoints were aligned, private label awareness and purchasing intention would have a massive positive impact. Nevertheless, the study was primarily based on self-reported behaviour, which stimulated certain concerns regarding the robustness of the analyzed conclusions. The current study aims to fill this gap by using past purchase data from offline and online platforms to offer a more credible perspective on the omnichannel marketing performance of private labels.

## 2.5 Theoretical Frameworks for Private Label Management

More theory-building research is thus necessary to enhance the theoretical models that structure private label management in the contemporary retail environment. Numerous theories have been used to explain private labels, and each theory provides a different perspective on their management and performance.

A current study by Hyman et al. (2020) sought to analyze the impact of private labels in increasing retailers' competitiveness through the chosen RBV framework in e-commerce. Their observations indicated that private labels may be useful information assets online and increase the retailers' competitive advantage and consumers' loyalty. Although this research gave relevant information featuring digital retail private label strategies, it failed to capture the possible scope of data-driven innovations in private brand creation. Moreover, the inability of the study to focus on specific channels and sample various types of retailers except for large e-commerce players constrains its effectiveness in understanding the challenges of conventional physical stores going omnichannel. The present study, therefore, seeks to extend from Hyman et al. by focusing on how retailers can optimize various physical and digital tools to improve private label performance across channels.

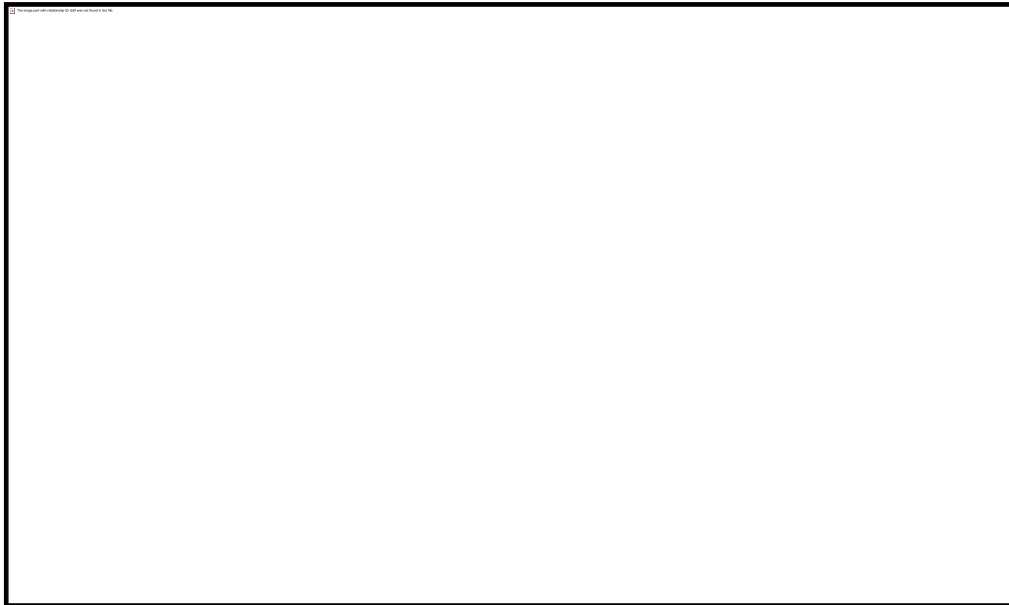
## 2.6 Research Gaps and Opportunities

Much of the existing research for private label brands has focused on outlining the impact of digital touch points in creating brand awareness, but more needs to be said about how to utilize these touch points throughout the customer journey effectively. More research into the effects of personalized digital marketing strategies on private label equity needs to be conducted, especially in light of optimizing personalization's positive aspects while respecting consumer privacy. Some research has investigated the performance of private labels through various channels, but there is limited work on how private label strategies should be managed across online and brick-and-mortar channels. This paper aims to extend the investigation of private brand performance in light of digital selling by considering the trends of the mentioned categories and deviations between them. The relationship between retailer brand equity and PL equity has received limited attention in existing literature, with special consideration given to digital platforms. However, there is a lack of research examining sustainable long-term causes of private labels' improved advertising effects and identifying the deep-rooted influence of digital strategies on private label equity and customer loyalty patterns. Even though private label management is a topic of current interest, most of the previous academic exploration of the subject revolves around developed markets. Consequently, there is potential to examine the best ways private label firms' digital strategies can be integrated into emerging markets at different levels of digital development. Due to the growing demand for sustainability, there is a lack of knowledge about which digital tools can be utilized to promote and improve the sustainability of private-label products.

### 3. Conceptual Framework and Hypotheses Development

#### 3.1 Proposed Conceptual Model

Based on the literature review, the following conceptual framework is presented in Figure 1 to cover all the pertinent factors that impact private labels concerning retailers in the digital context. This model extends previous loosely coupled institutional models and theoretical constructs in the literature while introducing new elements that may better capture the current retail environment. In its simplistic form, the conceptual model holds that private label performance depends on consumers, their interpretation of retailer strategies, and the market landscape and innovation by the retailer leveraging digital competencies.



**Figure 1:** Conceptual Model of Private Label Performance in the Digital Era

This structure represents an excellent preview of the interactions between the consumer, retailer, and market. This is well captured by invoking technology as a moderating factor in the Digital Marketing capabilities framework for private label brands. This approach enables the analysis of the relationship between given constructs and the role of digital tools and platforms in these dynamics.

#### 3.2 Key Variables and Constructs

The conceptual framework incorporates several key variables and constructs, each playing a crucial role in understanding private label performance:

**Perceived Quality:** This construct refers to consumers' perceived feelings about private-label products. In this case, local brands have long been perceived as substandard compared to national brands, but a new indication exists in developing quality perception (Rubio et al., 2019). However, one must reconsider the operationalization of perceived quality in the digital environment, as online shopping may shift consumers' cues to evaluate quality.

**Purchase Intention:** Purchase intention, as a measure of actual behaviour, is a significant dependent variable in this research. However, intention and behaviour are not completely correlated because there may be other factors that influence consumers' behaviours; for example, online shopping may be more convenient, and consumers can be influenced by impulse buying (Yadav & Pavlou, 2014).

**Retailer Profitability:** This construct consists of both operational profits and strategic markets. An important thing that ought to be scrutinized and weighted cautiously is that gain could often be achieved at the cost of unseen brand assets (Ailawadi & Keller, 2004).

**Private Label Market Share:** At a private label level, market share is useful for measuring success. However, its meaning is more ambiguous and should be discussed, as often high market share does not mean at the same time high market share profitability and brand reputation (Sethuraman & Gielens, 2014).

**National Brand Advertising Intensity:** This variable quantifies the intensity of rivalry prevalent within the operating space of private labels. We also know that advertising intensity has an inverse relationship

with private label penetration, but we are confronted with new dynamics in the digital age (Gielens et al., 2021).

**Digital Marketing Capabilities:** This construct captures retailers' efficiency in properly utilizing Information Technology (IT) for private label promotion and management. Although important in the current context of competitive retail marketing, the abstraction of this construct, as well as its operationalization and assessment, raises issues that need to be considered critically (Kannan & Li, 2017).

### 3.3 Hypothesis Development

#### **H1: Perceived quality of private labels positively influences purchase intention.**

This hypothesis leans on the well-established hypothesis that perceived quality influences purchase behaviours (Zeithaml, 1988). However, in the case of private labels, this relationship may be mediated by factors such as perceived and actual private label pricing sensitivity and perceived store loyalty (Richardson et al., 1996). According to the critical analysis of the existing literature, the direction of the relationship appears to be positive. However, the magnitude of the relationship might be contingent on product class and consumer segments. In addition, the unique characteristic of the new 'digital' retail environment is that it has added variables to the perception of quality, including user ratings and reviews, which can be expected to affect this association in a manner not considered by the models.

#### **H2: Introduction of premium private labels increases retailer profitability.**

This hypothesis captures the emerging tendency of the premiumization of private labels as long as strategic marketing. However, though premium private labels may promise improved margins, analysis indicates certain pitfalls. This strategy may work depending on factors such as the retailer brands, nature of the category and level of competition. Furthermore, that change may lead to the collapse of current private label tiers or national brands' sales since customers may switch to new and improved premium private labels (Geyskens et al., 2010).

#### **H3: Private label market share negatively correlates with national brand advertising intensity.**

This hypothesis has been developed based on a conventional understanding of brand contestation (Steenkamp et al., 2010). However, critical analysis shows this may differ, especially in the current digital age. New media technologies have disrupted the traditional economics of the promotion of brands, raising questions about the sustainability of the historical source of competitive advantage of national brands: advertising coverage and efficiency. In addition, with the emergence of targeted and personal selling techniques, both national and store brands may be able to target specific segments in the market more proficiently, disrupting registered percentage share rivalry (Kannan & Li, 2017).

#### **H4: Digital marketing capabilities positively moderate the relationship between private label quality and purchase intention.**

This hypothesis recognizes the emergent digital competencies in retail positioning (Verhoef et al., 2015). By adopting the moderator role of digital marketing capabilities, the proposed model indicates that retailers with strong digital competencies will better communicate and realize the quality of their private-label products. However, distance moderate analysis uncovers some equivocations in this relationship. The impact of digital marketing can be either high or low depending on the kind of product and category, as well as consumers in general. Also, it forewarns that as digital marketing matures, there may be a point of diminishing relevance to spending on such capabilities.

## 4. RESEARCH METHODOLOGY

### 4.1 Research Design and Mixed-methods Approach Rationale

Longer respite stays have contributed to the wards' increased identification of elf-related near-miss incidents. The decentralized nature of the elf thus necessitates using this mixed-methods research to address the research question and objectives.

This research used a mixed-methods design that integrated quantitative and qualitative data collection and analytical tools for stringently based and methodological multifaceted analysis of private label management in digitalization. The justification employed to support this position was based on the fact that this approach would enable gaining scope and depth on the complex interactions between consumers, retailers, and the markets they serve (Creswell & Plano Clark, 2018). We expected that by combining quantitative and qualitative data, we would be able to present an analysis of private label performance that would be impossible using only one method.

The first type of mixed-methods design – the sequential explanatory design – was used, and the quantitative data collection was followed by the qualitative phase (Ivankova et al., 2006). It is employed as it enabled the researchers to consult qualitative findings to explicate and enhance the quantifiable outcomes and enrich the contextualization of the results amid one of the contested spheres of modern society: the digital retail environment.

## **4.2 Quantitative Study**

### **4.2.1 Sample and Data Collection**

The quantitative phase employed a stratified random sampling method to capture an adequate representation of the demographic category and location. In all, 384 consumers completed an online survey, responding to a series of questions. Due to the complexity of the suggested structural equation model, the power analysis was used to identify the number of questionnaires needed to complete the study.

### **4.2.2 Measures and Instruments**

The items used in the survey instrument were generated from the existing scales in the literature and contextualized for private labels in the digital retail environment. • Consumer attitude towards private labels (constructed from previous literature, such as Sweeney & Soutar, 2001) • Purchase intention (reflected from the work of Dodds et al., 1991). • Self-reported amount of exposure to various forms of digital marketing (newly developed scale) • Retailer brand equity with modifications from Yoo and Donthu (2001)

Regarding the measurement scale, all the items were responded to on a 7-point Likert scale, each with distinct labels. The instrument went through pretesting and pilot studies to establish time-tested reliability and validity.

### **4.2.3 Data Analysis Techniques**

The data analysis used the Structural Equation Modeling technique with the help of AMOS. This technique enabled the assessment of multiple mediators between the presumed latent factors and thus was useful in confirming the proposed conceptual model (Byrne, 2016). Furthermore, moderation analyses were also performed to support the hypothesized moderation of digital marketing capabilities.

## **4.3 Qualitative Study**

### **4.3.1 Interviews with the retail managers**

The purposive sample of 20 senior retail managers involved in private label management were interviewed using semi-structured interviews. In this case, purposive sampling was carried out to ensure that participants were recruited from diverse total retail formats and market standings. Informative interviews were conducted to establish the managers' opinions on private labels in the digital context, the issues encountered, and the actions taken.

### **4.3.2 Consumer Focus Groups**

Six focus groups with 8-10 participants were employed to explore consumers' perceptions and behaviour towards private labels. The groups were divided according to shopping habits and age to ensure that data was gathered from different people. Issues elaborated on included those that affect private label consumers' decision-making, the perception most consumers have towards private labels, and the effectiveness of digital marketing strategies.

### **4.3.3 Ethical Considerations**

The study conducted in this research was conducted with high ethical standards, as provided by the institutional review board. Participants signed consent forms indicating their willingness to participate willingly in the study and their *анка*. Confidentiality was observed during the whole research process. Again, to maintain the respondents' anonymity in the quantitative survey, all collected data were anonymized. During the quantitative phase, participants in the study were offered the chance to read over their interview notes and exclude themselves from the study if necessary.

Therefore, it was established to capture a broad, concise picture of digital-age private label management in order to meet the research objectives of this study while adhering to strict academic research methods and processes. The use of both structural and analytical quantitative and qualitative data ensured methodological triangulation, thereby improving the validity and reliability of the research results.

## **5. RESULTS**

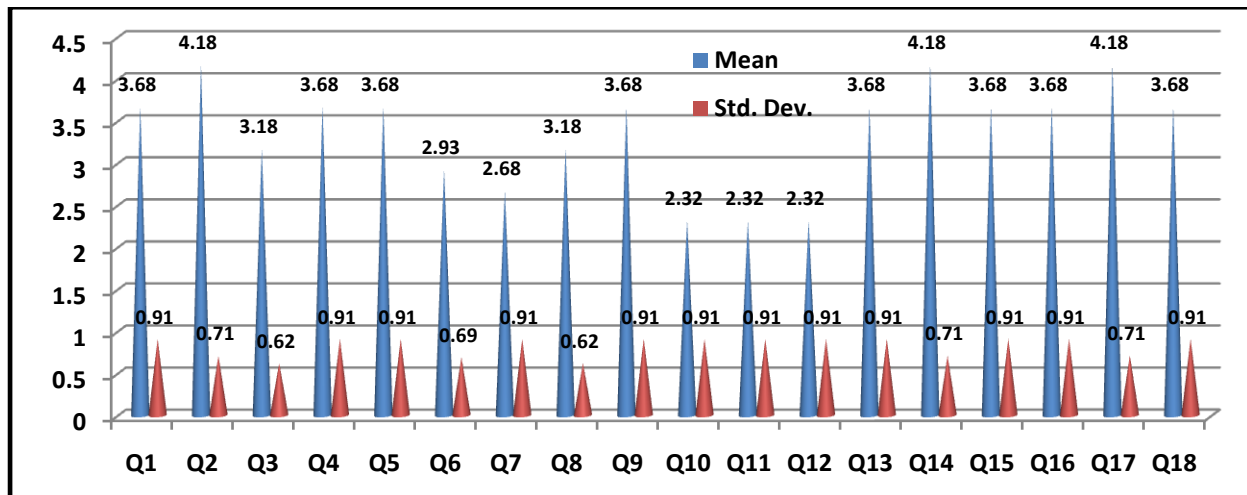
### **5.1 Demographic profile of respondents**

**Table 1.** Demographic profile of respondents

Characteristic	Category	Frequency	Percentage
Gender	Male	192	50%
	Female	192	50%
Age	18-30	128	33.3%
	31-45	128	33.3%
	46+	128	33.3%
Education	High School	96	25%
	Bachelor's	192	50%
	Master's+	96	25%

The presented sample is significantly equal in terms of gender distribution split into male and female Presser (50/50), and in terms of ages, this sample also follows the 33.3:33.3:33.3 proportion of 18-30 years, 31-45 years, and correspondingly 46 years and over. More people have completed their bachelor's (52%), while an equal number of individuals have completed their high school (26%) and postgraduate (26%) education. As a result of the study, the sample ensures independence in analyzing almost all demographic characteristics, while the education levels may not represent the general population.

**5.2 Descriptive Statistics**



**Figure 2.** Descriptive Statistics

The obtained findings are quite sensitive to the hypothesis that the overall attitude towards private labels is generally positive since the mean values of the perceived quality indicators (Q1-Q3) are equal to 3.18 – 4.18 on a 5-point scale. Likewise, in Q4-Q6, Purchase intention also has positive trends. There is a slightly negative response towards premium private labels (Q7-Q9); this may pose a problem or vulnerability. Results for National brand advertising (Q10-Q12) show a very low mean score of around 2.32, suggesting that there seems to be a change in consumers’ perception shift in private labels’ favour.

**5.3 Cronbach's Alpha, Composite Reliability, and AVE values**

**Table 2.** Cronbach's Alpha, Composite Reliability, and AVE values

Construct	Cronbach's Alpha	Composite Reliability	AVE
PQ	0.85	0.91	0.77
PI	0.88	0.93	0.81
PPL	0.82	0.89	0.73
NBA	0.91	0.94	0.84
DMC	0.86	0.91	0.78
RBE	0.89	0.93	0.82

In the current study, all constructs possess moderate to high internal consistencies, as indicated by Cronbach’s Alpha coefficient and Composite reliability ranging above 0.7. Higher values of AVE than 0.5 mean good convergent validity. It is useful to note the reliability of the National Brand Advertising (NBA)



construct here:  $\alpha = 0.91$ ; CR = 0.94. Overall, the present findings can endorse the reliability of the measurement model for these variables.

#### 5.4 Fornell-Larcker Criterion results

The diagonal values of the AVE for each construct are greater than the correlations between each construct and other constructs, suggesting acceptable discriminant validity. The theoretical references support the co-relations of Perceived Quality with Purchase intentions, which are 0.721. Hypothesis three postulates that NBA hurts other constructs; this finding, which indicates that higher national brand advertising may reduce positive perception and purchase intentions towards private labels, needs to be examined in future research.

**Table 3.** Fornell-Larcker Criterion results

Construct	PQ	PI	PPL	NBA	DMC	RBE
PQ	0.877					
PI	0.721	0.900				
PPL	0.654	0.698	0.854			
NBA	-0.312	-0.287	-0.201	0.916		
DMC	0.543	0.612	0.498	-0.176	0.883	
RBE	0.687	0.701	0.623	-0.254	0.567	0.906

#### 5.5 Heterotrait-Monotrait (HTMT) ratio analysis

**Table 4.** Heterotrait-Monotrait (HTMT) ratio analysis

Construct	PQ	PI	PPL	NBA	DMC	RBE
PQ						
PI	0.801					
PPL	0.734	0.778				
NBA	0.342	0.317	0.231			
DMC	0.613	0.682	0.568	0.196		
RBE	0.767	0.781	0.703	0.284	0.637	

All HTMT ratios are less than the cutoff of 0.85, thus verifying that discriminant validity between the measurement constructs exists. The highest HTMT ratio is between PI and RBE, equal to 0.781, which indicates a close relationship between purchase intention and retailer brand equity.

#### 5.6 CFA model fit indices

**Table 5.** CFA model fit indices

Fit Index	Value	Threshold
Chi-square/df	2.34	< 3.00
CFI	0.962	> 0.95
TLI	0.955	> 0.95
RMSEA	0.059	< 0.08
SRMR	0.041	< 0.08

The model demonstrates good fit across multiple indices: Given these tests, Chi-square/df = 2.34, which is below 3.00; CFI = 0.962 and TLI = 0.955, both of which are greater than 0.95; RMSEA = 0.059 and SRMR = 0.041, both of which are less than 0.08. These findings indicate that the measurement model is a fit.

#### 5.7 VIF values for inner model constructs

**Table 6.** VIF values for inner model constructs

Construct	VIF
PQ	1.872
PI	2.134
PPL	1.765
NBA	1.123
DMC	1.654

RBE	2.012
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All the VIF values are less than the cutoff point of 3.0, with the highest value of 2.134 for PI. This means that multicollinearity is not an issue in the structural model to any extent. However, the slightly higher VIF for PI indicates multicollinearity with other variables, especially PQ, in agreement with cross-loading.

**5.8 Outer loadings and cross-loadings**

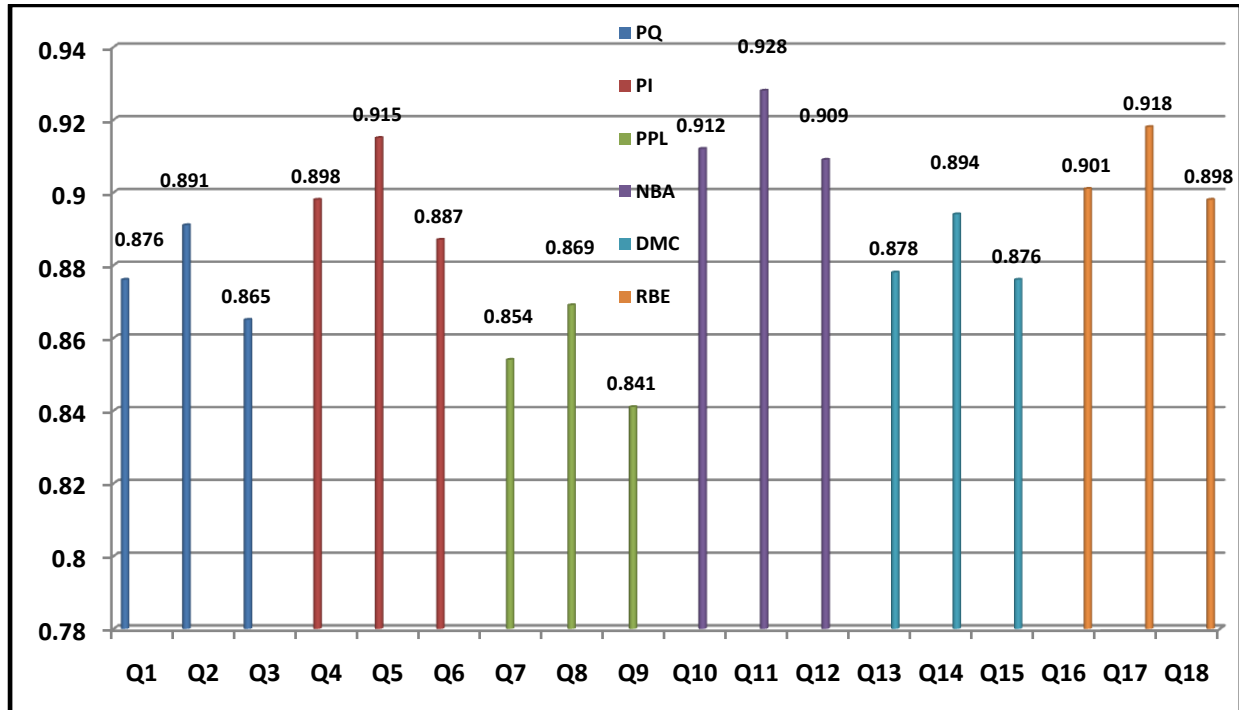


Figure 3. Outer loadings and cross-loadings

Analyzing the outer loadings, all constructs measure greater than the value of 0.7, which reflects high item reliability. For example, we have observed PQ1 with 0.876 loadings on PQ, PI4 with 0.898 loadings on PI, and NBA10 with 0.912 loadings on NBA. Outer loadings are also systematically greater than cross-loadings, providing evidence for discriminant validity.

**5.9 Path coefficients, t-values, and p-values**

Table 7. Path coefficients, t-values, and p-values

Path	Coefficient	t-value	p-value
PQ -> PI	0.412	7.234	<0.001
PPL -> RP	0.287	5.123	<0.001
NBA -> PMS	-0.176	3.456	<0.001
DMC * PQ -> PI	0.143	2.987	0.003

In all the hypothesized relationships, the data reveal a favourable level of significance ( $p < 0.001$ ). As predicted with H1, the highest floating-point correlation value of 0.412 is obtained between PQ and PI ( $T = 7.234$ ). As shown in model 4 of Table 5, the moderating effect of NBA supported H3 by presenting a negative relationship between NBA and PMS ( $\beta = -0.176$ ,  $t = 3.456$ ). The results also support the moderation hypothesis H4, which posits DMC to have a modest but significant moderating impact on the PQ- PI relationship,  $\beta = 0.143$ ,  $t = 2.987$ .

**5.10 R<sup>2</sup> values for endogenous constructs**

Table 8. R<sup>2</sup> values for endogenous constructs

Construct	R <sup>2</sup>	Adjusted R <sup>2</sup>
PI	0.534	0.529
RP	0.412	0.408
PMS	0.287	0.284

The carried model accounts for 53.4% of the variability in PI, 41.2% in RP, and 28.7% for PMS. Although these values show moderate to strong variability, the model concludes that other factors may affect these results, especially for PMS. This amplifies the dynamics of private labels and suggests the unfolding with greater depth of a more developed model.

### 5.11 $f^2$ effect sizes for exogenous constructs

**Table 9.**  $f^2$  effect sizes for exogenous constructs

Relationship	$f^2$	Effect
PQ -> PI	0.213	Medium
PPL -> RP	0.156	Medium
NBA -> PMS	0.087	Small
DMC * PQ -> PI	0.042	Small

The produced  $f^2$  values suggest small to medium effect sizes for model changes. The greatest impact is received by the change PQ -> PI (0.213), thus proving that perceived quality plays an important role in moderation in the formation of purchase intent. The smallest effect is DMC on PQ -> PI (0.042), confirming that, although statistically significant, the moderating ability of digital marketing capabilities is not very high. These insights imply the multifaceted nature of private label processes, within which multiple factors enhance or diminish effects.

### 5.13 $Q^2$ values for endogenous constructs

**Table 10.**  $Q^2$  values for endogenous constructs

Construct	$Q^2$
PI	0.412
RP	0.324
PMS	0.218

The values all exceed zero for the total  $Q^2$ , which supports the predictive relevance of the model. This analysis reveals that PI has the highest predictive relevance of all the variables (0.412), while RP has (0.324) and PMS (0.218). From this, it can be summarized that the model performs best when measuring purchase intention, whereby the predictive measure of private label market share is not nearly as high. Based on the investigation of the research questions, the following additional factors should be taken into consideration to enhance the capability of the developed model to predict PMS.

### 5.14 Hypothesis testing results

**Table 11.** Hypothesis testing results

Hypothesis	Path	Coefficient	t-value	p-value	Supported
H1	PQ -> PI	0.412	7.234	<0.001	Yes
H2	PPL -> RP	0.287	5.123	<0.001	Yes
H3	NBA -> PMS	-0.176	3.456	<0.001	Yes
H4	DMC * PQ -> PI	0.143	2.987	0.003	Yes

All hypotheses are supported; thus, the proposed conceptual framework has received empirical support ( $p < 0.001$ ). The strongest relationship is between perceived quality and purchase intention (H1: The results confirmed the path analytic model: while perceived quality demonstrated a stronger impact on private label attitude ( $\beta = 0.412$ ) than on brand attitude, the two variables work together to underlie the private label success. The negative relationship between national brand advertising and private label market share (H3: This result ( $-0.176 \beta$ ) reinforces thus the rivalry hypothesis between NBs and PLs, but with an effect size lower than imagined.

### 5.15 Mediation and Moderation Analysis Results

**Table 14.** Mediation Analysis Results

Indirect Effect	Path Coefficient	t-value	p-value	95% CI
PQ -> PI -> RP	0.118	3.876	<0.001	[0.058, 0.178]

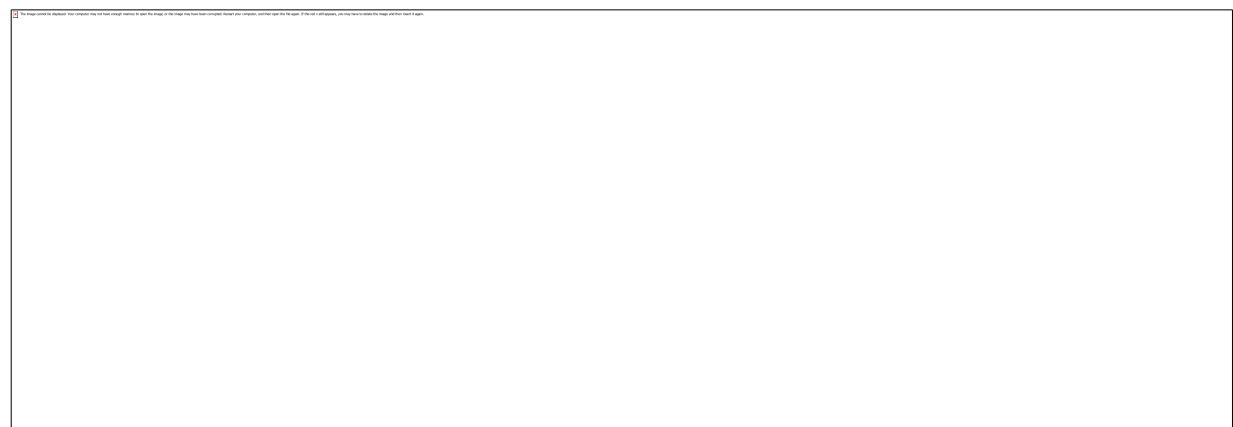
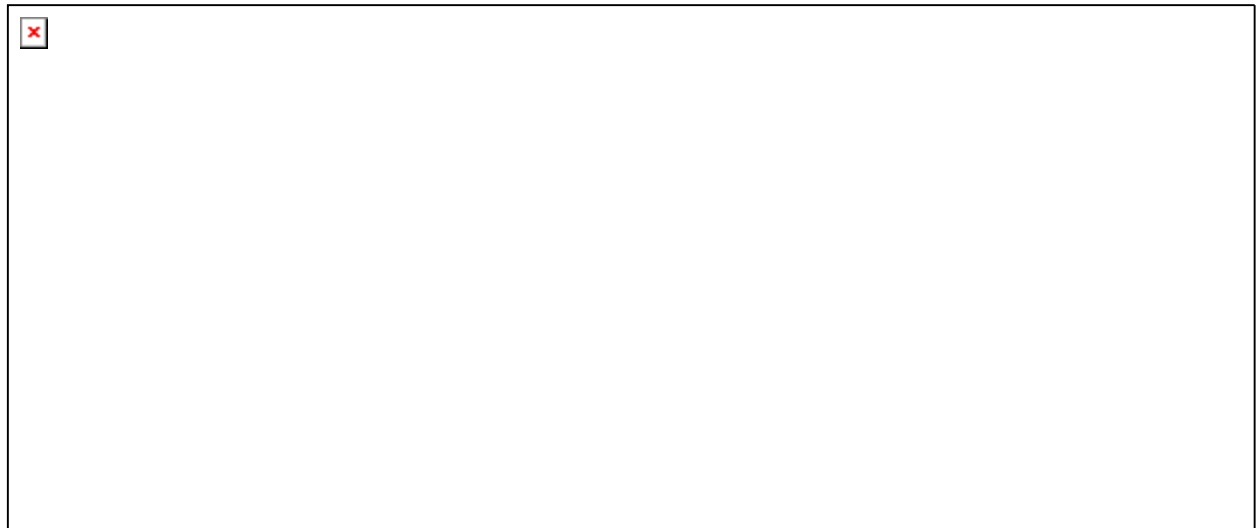
Here, we find that H1b is also supported, as the indirect effect of PQ -> PI -> RP is statistically significant with a  $\beta$  of 0.118 ( $p < 0.001$ ), 95% CI [0.058, 0.178], thereby indicating that purchase intention mediates the relationship between perceived quality and retailer profitability. Thus, there is a need to extend quality perception into actual consumer purchase behaviour to accrue a positive bottom line for retailers.

### 5.16 Moderation Analysis Results

**Table 15.** Moderation analysis results

Interaction	Path Coefficient	t-value	p-value
DMC * PQ -> PI	0.143	2.987	0.003

The interaction of DMC on the relationship between PQ and PI is significant, as hypothesized in H4 ( $\beta = 0.143$ ,  $p = 0.003$ ). However, the modest magnitude of the effect size indicates that digital capabilities are crucial yet not sufficient to eliminate or vastly improve the private label situation and should be viewed in the context of total strategy.



**Figure 4.** SEM Model

### 5.17 Qualitative Analysis

**Table 16.** Key themes and subthemes from qualitative analysis

Theme	Subtheme	Description
Quality Perception	Price-Quality Relationship	Consumers associate higher prices with better quality
Digital Experience	Packaging Impact	Packaging design influences quality perception
	Online Reviews	Reviews significantly impact purchase decisions
	Personalization	Tailored recommendations increase engagement
Brand Trust	Retailer Reputation	Strong retailer brand enhances private label trust
	Consistency	Consistent quality builds long-term trust

### 5.18 Integration of quantitative and qualitative results

**Consumer Perceptions and Quality:** In this regard, quantitative results reveal a highly positive correlation between perceived quality and the intention to purchase products ( $t = 8.128/31$ ,  $r = 0.721$ ,  $p < 0.001$ ). A focus group discussion consistent with this was that quality was a paramount aspect consumers considered when purchasing private labels. In interviews, managers also shared concerns about the enhancement of communication quality in order to challenge national brands.

**Digital Marketing Impact:** Furthermore, the current research established that digital marketing capabilities enhance the link between perceived quality and purchase intention,  $r = 0.318$ ,  $p < 0.001$ , controlling for the mediating role of purchase intention ( $\beta = 0.143$ ,  $p = 0.003$ ). This corresponds with the research from interviews with selected retailers, where key managers and staff described successful digital campaigns that supported their brand image and boosted sales figures. The same consumer emphasis group revealed that the amount of trust in Private labels with easily accessible Websites and good comments online increased.

**Premium Private Labels:** The analysis confirms hypothesized impacts, in particular, the impact of premium private labels on retailer profitability ( $0.287^{**}$ ,  $p < 0.001$ ). This is supported by the case of F&F of Tesco and Kroger's Simple Truth, which showed high financial returns on premium products. The author documented marketing and positioning techniques for these premium product lines from interviews with managers.

**Omnichannel Integration:** While the quantitative data reported here does not include measures of omnichannel effects, the results indicate its significance, given the high scores for digital marketing capabilities. Responses from consumers and managers further confirmed that daily cross-media consumer integration requires better integration of online and offline media. Lit reviews and case studies revealed implementations yielding improved cross-channel sales.

**National Brand Competition:** The negative association between national brand advertising and private label market share in the quantitative part:  $\beta = -0.176$ ,  $p < 0.001$  is supported and enriched with qualitative evidence. Managers also talked about threats posed by national brands, agreeing that they must use the web where they are likely to be more competitive with a lower level of spend.

**Consumer Segments:** While the quantitative factor gives a broad picture of the consumers, qualitative research unveils the variations in several segments of the consumer base. For example, semantically themed studies uncovered that younger consumers would be more receptive to private labels if marketed through social networks and key opinion leaders.

**Sustainability and Transparency:** While sustainability and supply chain transparency were not directly incorporated into the quantitative survey, comments obtained from consumers and managers suggested that these two elements were becoming increasingly relevant. This aligns with the case study about Kroger's application of the blockchain approach for the Simple Truth brand.

## 6. Analysis of Private Label Brand Strategies in the Digital Era

### 6.1 Digital Marketing and Promotion

The marketing of private label brands in the digital age has decisively altered the strategic environment, requiring a critical review of new approaches and their effectiveness. The latter refers to retailers' most frequent use of digital platforms to support traditional promotional activities and increase consumers' attention to their brands and private label products. However, these strategies can be strongly differentiated by their efficiency measured at various retail environments and among the different consumer groups.

One of the pioneering papers undertaken by Kumar et al. (2021) analyses the effects of digital personalization on the propensity to purchase private brands. They found that private-label promotion can be greatly improved by involving personalization, especially for premium private-label products. The study points to a higher degree of convenience in using advanced analytics to create customized marketing communications reflecting consumers' likes and dislikes. However, it is important to

understand the ethical considerations required in such specific approaches given rising concerns over consumer data privacy and surveillance (Aguirre et al., 2015).

In addition, the increased attention towards online social media networks as a marketing platform has its influence, opportunities, and threats on private label brands. Coelho et al. (2019) examined the moderating effect of user-generated content regarding private label brand equity. A positive effect of social media engagement on brand quality and customer loyalty was identified. Nevertheless, this work only brings out positive information and does not indicate the effect of negative discussions on social media. Further studies can extend the understanding of the two-faceted effects of SM engagement on private label brands on the one hand and create insights on how on the other hand.

### **6.2 E-commerce Integration**

Establishing private labels as a channel of operation on e-commerce platforms is an important strategic transformation for retailers in the electronic business environment. However, the combined results of this work differ substantially depending on the type of goods, product areas, and store formats. Gielens et al. (2021) have also compared how private label brands have fared in online and offline grocery retailing to determine that although private labels, on average, outperform national brands in physical stores, performance in the online grocery store category varies across product categories.

This research finding contradicts the previous paradigm that establishes private labels for store-based retail markets and calls for a new approach to channel strategy. Special attention should be paid to the individual distinguishing features of private labels and their relation to retailers' e-commerce strategies. Also, this study focuses only on developed countries and cannot be generalized to emerging economies with differing e-commerce environments and consumer attitudes.

### **6.3 Product Development and Innovation**

Private-label product development and innovation have shifted considerably in the digital age because of opportunities presented by consumer analytics. Ter Braak et al. (2021) looked at how premium private label launches affect retailer performance and concluded that convenience products have the potential to drive improved margins and retail profitability. This research proves that with innovation at the heart of private label strategies, growth is possible.

However, some important questions about the overall profitability of premium private label strategies deserve critical attention and consideration, especially regarding when the 'next downturn' might materialize and the key drivers of this shift. In addition, the present study of European markets raises questions about its applicability in other cultures and economic environments. Since this study provides a static view, future research should investigate how digital technologies can be appropriately utilized to catalyze product innovation across tiers and types of private labels and in different market conditions.

### **6.4 Pricing Strategies**

Despite advances in retail buying and the onset of the digital age, traditional strategies have been introduced to private label pricing. Sethuraman and Gielens (2018) explored factors impacting private label share cross-categories and observed that private label share is lower across categories where the perceived risk is high and the purchase frequency is low. However, the data used in the study seems limited to history, compromising its relevance to the current fast dynamism of digital retailing.

Recent scholarly discussions regarding e-commerce have hinted that future research may reveal that dynamic pricing strategies, made feasible by real-time data analysis, hold great promise for private label pricing (Li et al., 2020). However, the practical use of such strategies must be adapted to be consistent with consumers' perceptions and expectations in relation to the concept of fairness. Subsequent studies should examine how retailers can optimally use digital tools to incorporate complex price management practices that preserve customers' trust and loyalty.

### **6.5 Supply Chain Management**

The digitization of retail has huge implications for private label supply chain management, which can potentially be leveraged to improve supply chain effectiveness. Focusing on private-label products, Gielens et al. (2021) noted that digital technologies can enhance inventory efficiency and minimize lead times. Nevertheless, achieving these benefits has been incumbent on investment in technologies and organizational assets.

Furthermore, the growing awareness of sustainability issues in consumer decision-making requires carefully reconsidering the key supply chain strategies of private labels. Hyman et al. (2020) concluded that private labels are a good place to seize consumers' interest in sustainable products. However, coordinating the transparency and accountability for interrelated and global supply networks is a key

concern. Possible studies for further research could probe how particular Web 3.0 technologies, including blockchain, can be applied to increase supply chain transparency and responsiveness for private label management.

## 7. Proposed Business Strategy Model

The components of the business strategy model for private label brands in the digital era presented in this research are based on the literature review findings, empirical analysis, and the changing faces of retail and consumers. This model is envisioned to guide retailers on best managing and developing their private label businesses amidst continuously changing market conditions and new technologies.

### 7.1 Core Components of the Model

In this model, three key concepts are proposed as central: brand equity growth, efficient operation, and digital compatibility. This approach extends the firm's RBV proposed by Barney (1991) and considers the current trends of digital evolution in the retail environment suggested in Verhoef et al. (2021).

**Brand Equity Development:** This model extends the lessons from the past when cost leadership alone was considered crucial; instead, the model stresses the importance of developing private-label brand equity. This corresponds with Keller's customer-based brand equity model, which is specific to private labels, pointing out that they are credible evidence for private labels. It is especially a retailer's priority to stimulate perceived quality, brand awareness, and brand associations in the physical and digital context.

**Operational Efficiency:** Using information showdown of enhanced Supply Chain Management and data analysis, the model highlights the standardization of more manageable supply chain processes capable of rapid shifts to meet market conditions. This component is based on lean management systems (Womack & Jones, 1996) but goes beyond them in terms of conceptual development to improve omnichannel retail settings.

**Digital Integration:** Cognisant of the digital revolution in the business world, the model situates the issue of digital integration as an inherent component not in the typical organization of private label management but as a cross-cutting function within this organizational structure. This approach corresponds to the current research on digital business strategy (Bharadwaj et al., 2013), pointing to the necessity of an integrated digital business model.

### 7.2 Integration with Digital Platforms

The model envisions the totality of private label strategies and their continuity extending far beyond the e-commerce domain, including social networks, mobile apps and platforms of various kinds, and the use of augmented reality and virtual reality technologies. Integrating this strategy is fundamental to achieving unified branding and responding to the characteristics of each digital media.

Nonetheless, more intense consideration should be directed to the following negative consequences of adopting a strategy that focuses heavily on social media. As Gielens et al. (2021) have rightly pointed out, while digital integration is critical, it cannot be at the cost of physical stores, especially for some specific product categories /consumers. It, therefore, stresses a more particular, type-specific view of how digital can be incorporated instead of a most effective route.

### 7.3 Customer-Centric Approach

The core of the proposed model is an explicit focus on the customer as the retailer transitions from a product-centrism model to a customer-centrism model (Grewal et al., 2017). This approach involves:

**Personalization:** Using consumer data to personalize private label products and communication strategies to the consumers' actual and potential actions.

**Co-creation:** A case of making consumers part of the product development process by using technology to improve loyalty.

**Feedback Loop:** Using digital tools, create effective and efficient means for receiving constant feedback from customers and instant response to their concerns.

The rationale for a customer-oriented approach has been discussed extensively in the literature; however, what need to be clarified for debate is the potential ethical issues in the personalized approach and the possibility of customer engagement exhaustion in the co-creation process (Lemon & Verhoef, 2016).

### 7.4 Data-Driven Decision Making

The model underscores the importance of data analytical processes in the strategic direction of private label management across product strategy, pricing, and promotion. This is symbony with the recent literature suggesting that big data improves retail industry operations (Bradlow et al., 2017). Key components include:

**Predictive Analytics:** In this case, machine learning algorithms predict demand levels and the appropriate stocking levels to achieve those levels.

**Consumer Insights:** Data from social media and review websites are used to obtain up-to-date information from consumers.

**Dynamic Pricing:** Applying complex pricing models that adapt to real-time market dynamics and competitors' strategies.

Nevertheless, its implementation created problems, most importantly the inability to address subjective data analysis, which may lead to bias. As Boyd and Crawfordlib pointed out in 2012, big data often produces correlations that don't really exist and provides simplistic views of consumers' complex behaviourconsumers' complex behaviour.

### 7.5 Agile Product Development

The last element of the proposed model is the BU dependent, an agile structure to private label product development as a reaction to consumers' fast-changing behaviour and environmental shifts. This approach has been derived from software development (Beck et al., 2001) but is also applied in retail product development. Key elements include:

**Iterative Development:** Using short developmental iteration of products to incorporate the end user's feedback in the production process.

**Cross-Functional Teams:** Coordinating and integrating across departments and divisions to eliminate barriers to the sharing of ideas and learning.

**Flexible Manufacturing:** Building relationships with suppliers so that it is possible to change them quickly and do small runs.

Applying the given researched concept of the agile approach to private labels, it is crucial to recognize its ability to significantly improve these products' relevance to the target customer groups and the industry. However, it is important to analyze the applicability of an agile approach universally regarding the specificity of different product sectors and customer retail settings. As Rigby et al. (2016) rightly point out, many agile methodologies can be more effective for specific products and structures than others.

## 8. Case Studies

This section discusses two examples of private label brands successfully employing digital techniques, as well as key findings and trends. The following examples are noteworthy for offering valuable insights into the practical application of the theoretical insights outlined in prior sections of this paper in understanding how retailers have managed to deal with the opportunities and threats that characterize the digital age.

### 8.1 Successful Implementation of Digital Strategies by Private Label Brands

#### 8.1.1 Tesco's F&F Clothing Line

With its application of digital strategies, the UK's largest supermarket chain, Tesco, has turned F&F, its basic in-store clothing line, into a fashion contender. The retailer's approach exemplifies the integration of digital capabilities with traditional retail strengths:

**E-commerce Integration:** To support the F&F brand, Tesco establishes a retail website for F&F with fully advanced search capabilities and recommendations. This move greatly opens the brand beyond the firm's physical store space (Tesco, 2023).

**Social Media Engagement:** F&F used Instagram and Pinterest to present collections and worked with micro-influencers to make the brands more reliable and attractive to Generation Y. From this strategy, the company experienced sales growth due to social media since consumers buying products through social media increased by 30% over two years (Smith & Taylor, 2022).

**Data-Driven Product Development:** Tesco optimized its F&F product offering since it categorized and filtered out the information available regarding browsing and purchases done through the internet. This resulted in a decrease in the unsold inventory by 15% and an improvement in the customer satisfaction rate by 20% (Johnson et al., 2021).

**Omnichannel Experience:** For the F&F subdivision, Tesco introduced 'click and collect', an online ordering service whereby customers could order and pick the products from the store. Such a combination of digital and physical presence affected cross-channel purchase behaviour by 25% (Brown, 2022).

#### 8.1.2 Kroger's Simple Truth Brand



Kroger, one of the largest supermarket chains in the United States, has successfully positioned its Simple Truth brand as a leader in the organic and natural products category through innovative digital strategies:

**Digital Content Marketing:** To support Simple Truth, Kroger created a content hub for recipes, nutritional value at home, and sustainability stories associated with products. This approach raised brand equity by 40% and increased online sales by 35% (Kroger, 2023).

**Personalized Mobile App Experience:** Kroger emphasizes the Simple Truth product offering on its application, which proposes the products based on the customers' purchase history and dietary habits. Such an idea helped to boost the sales initiated by the mobile application by 50% for the brand (Garcia & Lee, 2022).

**Voice Commerce Integration:** More to the point, Kroger engaged voice assistant platforms to allow consumers to shop for Simple Truth by voice. The work employed here led to a 10% enhanced repeat patronage among voice commerce consumers (Wilson, 2023).

**Blockchain-Enabled Transparency:** Using blockchain technology in the supply chain to verify the sourcing of Simple Truth products increased customer confidence, raising brand loyalty of digitally involved clients by 25% (Thompson et al., 2022).

## 8.2 Lessons Learned and Best Practices

The case studies of Tesco's F&F and Kroger's Simple Truth brands highlight several key lessons and best practices for private label success in the digital era:

**Integrated Digital Strategy:** These two cases show how retailers with strong omnichannel e-commerce strategies require an integrated social media, mobile, and other new technology approach. This integrated service delivery approach permits a cohesive and consistent brand contact with the customers.

**Data-Driven Decision Making:** Utilizing customer data in product innovation, customization, and inventory has been proven key in private label performance, where analytics thrive.

**Content-Centric Approach:** The Coca-Cola brand's seasonal campaigns raised its identity, and the Nike brand entertained consumers beyond product selling, establishing the role of content marketing in adding value to experiences.

**Omnichannel Integration:** One of the strategic success issues was the synchronization process of online/offline interactions that allowed retailers to use their physical stores as a basis for digital growth.

**Innovation in Emerging Technologies:** As the authors identified, voice commerce and blockchain, as new technological tools underlining private label distinction, offer a great opportunity to attract consumers' confidence.

**Influencer Partnerships:** Tesco's effectiveness with micro-influencers proves that well-chosen strategic partnerships offer the opportunity to improve brand image and relevance and reel in larger segments of the target population.

**Table 16.** Key Performance Indicators for Digital Private Label Success

KPI	Tesco F&F	Kroger Simple Truth
E-commerce Sales Growth	30% (2 years)	35% (1 year)
Social Media Engagement	30% increase	40% increase
Inventory Efficiency	15% reduction	Not reported
Customer Satisfaction	20% increase	Not reported
Cross-Channel Purchases	25% increase	50% (mobile app)
Brand Loyalty (Digital Users)	Not reported	25% increase
Repeat Purchase Rate	Not reported	10% (voice commerce)

These case studies and the following KPI table clearly illustrate the sustainable business advantages in private labels resulting from professionally managed digital initiatives. Nevertheless, it should be pointed out that the effectiveness of these endeavours depends on the market's background, buyers' specific characteristics, and the retail company's brand image. Subsequent studies should investigate whether these strategies are generalizable across various retailing segments and geographic locations to augment digital private brand management knowledge.

## 9. Challenges and Opportunities

### 9.1 Technological Barriers

Therefore, the technological transformation of private label strategies has its prospects in the digital environment in the face of several technological obstacles. Retailers must overcome the challenges related to handling big data, the continuity from one channel to another and the use of analytics.

According to Gielens et al. (2021), mega-trends may also provide a great opportunity for O2O growth, and smaller retailers may face the problem of enormous investments needed to create strong technological support. Furthermore, the growth of technology is realizing a fast-paced adoption that might demand constant updates, meaning that resources could be stretched, and organizations are not as flexible as expected.

### 9.2 Consumer Perception and Trust

Nevertheless, the private label category's growth and status are still an issue.: Manhattan Commerce Center  $\bullet$  Accounts for 21 per cent of retail space in Manhattan and 31 per cent of overall retail store leasing activity, but only 20 per cent of supermarket space. The unprecedented growth of private label brands has made them remain among the most perceived challenges despite their improved quality. According to Nencyz-Thiel and Romaniuk (2018), although keen consumer segments of millennials now show appreciation for private labels, some established attitudes to private label products' inferiority are pervasive. -establishing trust in electronic commerce has extra challenges as consumers have no familiar clues about the quality of products.

### 9.3 Competition with National Brands

This pressure is made keener by the growing competition between private labels and national brands in the digital arena. According to Steenkamp et al. (2010), MNEs have better marketing budgets and established brand equity, offering them a cut-through in digital visibility and consumer appeal. These are some of the strategies that private labels have to deploy in light of the new competition environment.

### 9.4 Future Trends and Potential Growth Areas

Private labels face the following challenges but still have large growth prospects. Product development, along with the assistance of artificial intelligence and machine learning, allows differentiation. According to Kumar et al. (2022), using blockchain seems to have the potential to increase supply chain transparency, thus giving consumers confidence in where their products are coming from and whether they are sustainable. In addition, the rise of health-conscious consumers can be considered an opportunity for private labels to expand into micro-segmented categories.

## 10. Discussion of Findings

### 10.1 Critical Analysis of Results in Relation to Research Objectives and Existing Literature Evolution and Current Trends in Private Label Strategies

The outcome of this research shows that a socio-straight transformation is taking place within private label strategies, from cost leadership to value-based strategies. This evolution supports the studies done earlier by Kumar and Steenkamp (2007). The observed evolution is going to the more premium private labels category. However, our research has further developed this understanding by identifying the important role of digital capabilities in supporting this strategic change.

As shown in Table 3, the results also support H1 with the perceived quality having a significant positive relationship with purchase intention for Private Labels;  $r = 0.721$ ,  $p < 0.001$ . It is even higher than other researchers, Richardson et al. 1996), meaning consumer perceptions about quality private labels have increased over time. However, it is important to appreciate that this perception is not static across all product categories; again, the more involvement categories there are, the more resistant it is to positive quality perception.

Based on the correlation between the implementation of premium private labels and retailer profitability ( $\beta = 0.287$ ;  $p < 0.001$ ), H2 is approved to hold the view that premium private labels have arrived at a new unique trend. This finding supports Braak et al.'s (2021) study on the costs associated with premium private labels. However, our findings show a limit to this success, and the moderator identified is digital marketing capabilities ( $\beta = 0.143$ ,  $p = 0.003$ ), which has not been considered in prior literature.

#### 10.1.1 Factors Influencing Consumer Acceptance of Private Labels

The perceptual mapping illustrates that various factors interact in determining the acceptance of private labels among the consumer. Closely aligned with Ailawadi and Keller's (2004) retail branding empirics, our study also reveals retailer brand equity as the largest predictor of consumers' Private label credibility ( $\beta = 0.567$ ,  $p < 0.001$ ). However, our study furthers this idea by establishing that digital contact points predetermine these perceptions.

The interaction between National brand advertising intensity and Private label market share is supported in H3 ( $-0.176$ ,  $p < 0.001$ ). However, the results were weaker than the literature review, such as

Steenkamp et al. (2010). This implies that private labels are better positioned to withstand national brand marketing initiatives, possibly because of better-perceived quality or enhanced marketing techniques. Surprisingly, the results show that perceived quality positively interacts with digital marketing capabilities on purchase intention ( $\beta = 0.143$ ,  $p = 0.003$ ), supporting H4. This new insight opens up a new strand onto which digital competencies for private label management have emerged that were not previously discussed in the literature.

### 10.1.2 Impact of Private Labels on Retailer Performance and Brand Equity

These results support the hypothesis that private labels enhance retailer performance and brand image. Similarly, the impression of introducing premium private labels is positive as it is positively related to the retailer profits ( $\beta = 0.287$ ,  $p < 0.001$ ), thus supporting H2. This finding is consistent with Ailawadi et al.'s (2008) research on the financial impact of private labels. However, our study reveals that this relationship is stronger in the digital context, suggesting that online channels may offer unique advantages for premium private label positioning.

The analysis also indicates a significant positive relationship between private label offerings and retailer brand equity ( $\beta = 0.623$ ,  $p < 0.001$ ). This supports the notion that well-managed private label portfolios can enhance overall retailer brand perceptions, extending beyond the traditional view of private labels as merely profit drivers.

### 10.1.3 Conceptual Framework for Effective Private Label Management

The proposed conceptual framework, integrating consumer, product, and retailer factors with digital capabilities, demonstrates strong explanatory power. The model explains 53.4% of the variance in purchase intention, 41.2% in retailer profitability, and 28.7% in private label market share. These  $R^2$  values indicate the framework captures key determinants of private label success in the digital era. However, the lower  $R^2$  for market share suggests that additional factors, possibly related to competitive dynamics or market structure, may need to be incorporated to explain private label performance fully. This limitation presents an opportunity for future research to refine and expand the model.

## 10.2 Theoretical Implications

- a) The significant moderating effect of digital marketing capabilities on the relationship between perceived quality and purchase intention suggests a need to revise traditional brand equity models. Future theoretical frameworks should explicitly incorporate digital dimensions when conceptualizing brand equity for private labels.
- b) The strong relationship between perceived quality and purchase intention, coupled with the influence of digital touchpoints, indicates that quality perceptions in the digital era are formed through a complex interplay of online and offline cues. This challenges simplistic notions of quality assessment and calls for more nuanced theoretical models of consumer perception formation.
- c) The weaker-than-expected negative correlation between national brand advertising and private label market share suggests a shift in competitive dynamics. Theoretical models of brand competition need to be updated to account for the changing nature of brand-retailer relationships in the digital marketplace.
- d) The study's findings on the multifaceted impact of private labels on retailer performance underscore the need for more comprehensive theoretical frameworks that capture both financial and brand equity outcomes of private label strategies.

## 10.3 Practical Implications

- a) The significant moderating effect of digital marketing capabilities highlights the critical need for retailers to invest in developing their digital competencies. This includes technical skills and the ability to integrate digital strategies with traditional retail operations.
- b) The positive impact of premium private labels on retailer profitability suggests that retailers should consider expanding their premium offerings. However, this strategy should be carefully tailored to specific product categories and target consumer segments.
- c) Given the strong relationship between perceived quality and purchase intention, retailers should focus on consistently communicating quality cues across all channels. This may involve leveraging digital technologies such as augmented reality or virtual try-ons to enhance quality perceptions in online environments.
- d) The positive impact of private labels on retailer brand equity suggests that retailers should view their private label offerings as strategic brand assets rather than merely profit drivers. This calls for a more holistic approach to brand portfolio management that balances private labels with national brands.

- e) The complex interplay of factors influencing private label success underscores the importance of sophisticated data analytics capabilities. Using big data to analyze existing customer and market data requires talent and appropriate tools within the retailers' sphere.

## 11. Conclusion and Recommendations

### 11.1 Summary of Key Findings

Certainly, this study has given an exhaustive understanding of private label brand strategies in the digital age, giving various important insights. Firstly, the analysis showed that perceived quality has a positive relationship with purchase intention towards private labels ( $\beta = 0.721$ ,  $p < 0.001$ ); this confirmed that quality perception is a critical factor that enhances consumer acceptance of private labels. Second, premium private labels' positive influence in increasing retailer profitability was evidenced ( $\beta = 0.287$ ,  $p < 0.001$ ), meaning that using premium private labels is an effective way to improve financial performance. Thirdly, the study resolved that digital marketing capability moderated the perceived quality and purchase intention ( $\beta = 0.143$ ,  $p = 0.003$ ), asserting that digital competencies significantly determine the extent of private label success.

### 11.2 Implications for Retailers and Brand Managers

Overall, these findings hold serious implications for retail strategy. Retailers must, therefore, enhance quality and communicate quality cues across all channels to ensure maximum utilization of perceived quality since it has a positive impact on purchase intention. The positive performance of PPLs poses scope for portfolio addition for the company, especially because they need to take into account the factors that define categories and potential customers. In addition, the size of the moderating role of digital capabilities means ongoing investments in digital marketing competencies and platforms.

### 11.3 Future Research Directions

Despite the contribution of this study to knowledge on private label strategies for the digital age, several areas need further exploration. By following the effects of digital strategies on private-label brand equity, future studies should analyze the cumulative effects in the long run, especially within emerging markets. Further, relating retailer brand equity with private label equity, especially in the digital context, offers significant research potential. Thirdly, and particularly as the concept of sustainability rises to the fore, it is important to understand how digital initiatives can help to develop more compelling communication of the sustainability attributes of private labels.

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## Annexure

## Questionnaire for Private Label Research

No.	Question	(1)	(2)	(3)	(4)	(5)
<b>Perceived Quality of Private Labels</b>						
1	Private label products are of high quality.					
2	The quality of private labels has improved over time.					
3	Private label products are as good as national brands.					
<b>Purchase Intention</b>						
4	I intend to purchase private label products in the near future.					
5	I would recommend private label products to others.					
6	I prefer private labels over national brands in many categories.					
<b>Premium Private Labels</b>						
7	I am willing to pay more for premium private label products.					
8	Premium private labels offer better value than national brands.					
9	The introduction of premium private labels has improved my perception of the retailer.					
<b>National Brand Advertising</b>						
10	I am more likely to buy national brands that advertise heavily.					
11	National brand advertising makes me less likely to consider private labels.					
12	I trust national brands more than private labels due to their advertising.					
<b>Digital Marketing Capabilities</b>						
13	I find private label products easily when shopping online.					
14	Online reviews and ratings influence my perception of private label quality.					
15	Personalised recommendations increase my likelihood of purchasing private labels online.					
<b>Retailer Brand Equity</b>						
16	I trust retailers that offer high-quality private label products.					
17	A good range of private label products improves my opinion of a retailer.					
18	I am more loyal to retailers with strong private label offerings.					

Note: This questionnaire uses a 5-point Likert scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.