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Leveraging Logistics Competence in New Product Sourcing: The Role of Strategic Intent and Impact on Performance

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Abstract: The purpose of the present research is to examine and compare product and logistics competencies in supplier selection decisions, which can serve as a crucial building block for competitive differentiation, in the context of the unique private label (PL) supply chain. This study also hypothesizes about the impact of product and logistics competence on the retailer's financial performance. Lastly, the moderating role of the product type in the proposed research model is explored. Partial least squares path modelling is used to analyze the dataset drawn from major South Korean retailers, due to the exploratory nature of the research and the use of both reflective and formative construct measurement items. Overall, the results of this study demonstrate that relationships between the desire for a particular strategic intent and performance are more complex than previous studies have implied. The findings of this research offer possible explanations on an important but understudied aspect of PL success: why not all PLs (even of the same retailer) are thriving even in a rapidly growing PL industry. We further elicit strategic recommendations for retailers in selecting PL suppliers and for PL manufacturers to differentiate themselves and achieve a superior performance.

Keywords: logistics competence; operations strategy; purchasing; retail industry

1. Introduction

The impact of logistics on firm performance and the competitive advantage is undisputed and has been a long-established tenet in supply chain management research. As such, the concept of logistics competence (i.e., the possession of capabilities enabling superior logistical performance) has received considerable attention in the literature. While firms may decide to develop logistics competence internally, recent research has indicated that if this detracts from expertise in other areas, logistics-related activities are often outsourced to third-party logistics providers [1,2]. An alternate way for firms to obtain logistics competence without internal investment is to leverage the capabilities of the supply base [3]. For instance, 7-Eleven, a frequently cited case study, leveraged the logistics competence of prepared-foods distributor E.A. Sween and its combined distribution centers. Therefore, the desire to obtain logistics competence can play a crucial role in supplier selection decisions.

Despite its importance, purchasing and supply management literature has largely neglected the explicit consideration of logistics competence in supplier selection and its contrast to more traditional or conventional selection criteria surrounding product competence. Our research, which is based in the private label retail setting, aims to fill this gap by contrasting logistics competence to product competence in a new product supplier selection, delineating how the emphasis afforded to each

is driven by a firm's strategic intent, and assessing its ultimate performance impact. We define logistics and product competence as proficiency in managing logistics- and product-related dimensions, respectively, in a buyer-supplier relationship, as perceived by the buying firm.

Specifically, *logistics competence* assesses whether a supplier can deliver products to a customer at the lowest possible logistics cost in a timely manner and the supplier's ability to react quickly to changes in the customer's delivery requirements within an appropriate timeframe. This consists of key capabilities enabling superior logistical performance as conceptualized in the literature (e.g., [4]). *Product competence* assesses whether a supplier can manufacture products at a lower cost and higher quality relative to the competition and includes non-logistics related criteria. Based on the literature review (e.g., [5]) and in an attempt to parsimoniously contrast logistics competence to other competencies, the supplier selection criteria that pertain to such aspects of the product are classified as product competence.

Overall, the objective of this research is to contrast logistics-related aspects (i.e., logistics competence) with product-related aspects (i.e., product competence) and investigate their relative importance vis-a-vis the buyer's strategic intent. A buyer's strategic intent is conceptualized as focusing on the strengthening of its bargaining power and establishing brand loyalty, which are important considerations in the private label retail chain, the setting within which we based our investigation. In addition, we investigate the impact of both logistics and product competence on financial performance. Given this framework, we further assess the moderating role of product category (i.e., food or non-food), which has been a common distinction in retail supply chains.

2. Research Framework and Questions

Private label (PL) retail chains have unique characteristics. First, retailers face challenges that differ from those found between industrial suppliers and their manufacturers, and as such, studies focusing on the manufacturing industry cannot always directly be applied to the retail context. Specifically, many times, retail companies purchase finished goods (i.e., not components or materials) and thus must deal with high product variety and small lot sizes [6,7]. As a result, although the retailer directly faces the end customer, its suppliers (i.e., manufacturers) often have better knowledge of markets, such as their awareness of desired product features, customer preferences, and effective market strategies. Taken together, sourcing decisions can therefore have a more significant impact on performance for retailers than for some manufacturing firms.

Second, a growing trend within retail is that companies offer their own PL products with the objective of differentiating themselves and increasing their bargaining power [8,9]. Consumers are also increasingly accepting PLs and view them as being on the same level as name brand (NB) products. PLs are often not considered as low-cost alternatives anymore, due to improvements in packaging, quality, marketing, and innovation [10]. Most consumers find new PL products when they are browsing NB products in sections of the store where they usually shop; as such, product availability plays a critical role in consumers' purchasing decisions. At the same time, the competition among PLs is becoming more intense as retailers continuously improve their development, promotion, and sales efforts of their PL assortment [11,12]. These developments collectively result in the growing importance of both logistics competence and product competence in PL supplier selection decisions with the objective to drive financial performance.

In this intriguing context, the present research aims to explore the strategic antecedents of the supplier selection with tenets derived from strategic choice theory [13]. This theory postulates that decision-makers strategically design business relationships to achieve desired managerial objectives. While past studies have examined the alignment between a business strategy and sourcing strategy, the strategic intentions behind the retailer's new PL offerings and the ensuing sourcing decisions are not well understood. To address this void in logistics and supply management literature, this study firstly proposes a grounded framework that interlinks a buying firm's strategic intent behind its new PL offerings, corresponding supplier selection decisions, and subsequent performance outcome. On the basis of this framework, we next posit that retailers aiming for stronger bargaining power when

approaching NB suppliers and/or higher store loyalty when launching PL products will emphasize the logistics performance of potential supply partners over their product performance. Furthermore, we suggest a *differential influence* on the retailer's financial performance, with logistics competence having a greater positive impact than product competence. We also test the moderating role of product category (i.e., food or non-food), a common distinction in retail supply chains (c.f., [14–16]). The overall research model is summarized in Figure 1.

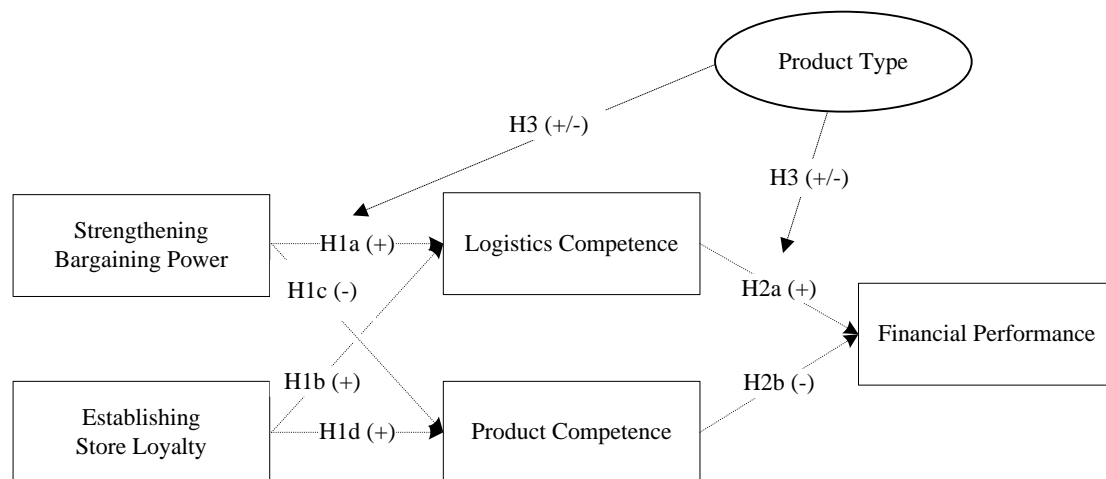


Figure 1. Proposed model.

3. Hypothesis Development

3.1. The Effect of Strategic Intent on Supplier Selection Criteria

The concept of strategic intent in management was initially suggested and defined by Hamel and Prahalad [17] as “a stable obsession on winning, which specifies a desired leadership position and establishes the criterion the organization will use to chart its progress” (p. 150). As an overall organization's desired future direction, strategic intent is more than a vision or ambitious target of top management teams in that it is shared and implemented by every organizational member on all levels [18,19]. Retailers can advance two strategic intents by rolling out new PLs. First, bargaining power, defined as the ability of a retailer to obtain leverage over its suppliers, has been identified as a primary strategic intent in the literature [20]. For example, new PLs often bring about an improved category margin by helping retailers negotiate lower wholesale prices or demand more sales promotions from NBs [21]. Store loyalty, which refers to a customer's intention to repeat purchasing behavior at a particular retail chain, is another critical consideration in new PL offerings [22]. The Private Label Manufacturers Association website echoes this by noting that “retailers use PLs to increase business as well as to win the loyalty of their customers.”

Prior PL literature, however, does not fully account for the link between these strategic intents and retailer performance. For instance, Ailawadi and Harlam [23] found that the heightened bargaining power obtained by new PL introductions does not always provide higher margins for retailers, and Pauwels and Srinivasan [24] showed that the addition of PLs does not always lead to higher gross category margins. These inconsistent findings suggest that the strategic intent per se does not guarantee desirable consequences for retailers, but rather needs to be translated into appropriate actions to have a performance impact. Recent purchasing and supply management literature emphasized that manufacturers must set clear criteria for supplier selection and ensure they are well aligned with the firm's strategic intents [25,26]. From a theoretical standpoint, this view also corresponds to strategic choice theory, which asserts that strategic intents are pursued via specific actions. In other words, the retailer's intent of introducing a new PL would be better understood and implemented by its sourcing managers when specific guidelines for building buyer-supplier relationships are provided.

This research, therefore, posits that it is the strategic intent, in conjunction with PL supplier selection criteria, that yields retailer performance.

Specifically, we first put forward the notion that the emphasis on a PL supplier's logistics competence can be driven by the retailer's desire to improve its bargaining position over its NB suppliers. Logistics competence has become a crucial supplier selection dimension because it is critically important for retailers to ensure their PL suppliers deliver the products on time, in the right quantity, and to the right store. As major retail markets consolidate and competition increases, retailers are beginning to recognize the importance of logistics competence. For instance, the importance of logistics cost has grown continuously due to the proliferation of global sourcing and dispersed production locations. Unstable world oil prices and other logistics risks and uncertainties continue to drive retailers to appreciate the logistics capabilities of their PL suppliers more than they had in the past. In this regard, one crucial performance dimension is the supplier's capability in the areas of demand management, flexibility, transportation, and delivery reliability [27,28]. In an attempt to bolster its bargaining power over NB suppliers, therefore, the retailer can employ logistically competent suppliers for its new PL products. This idea is represented in the following hypothesis:

Hypothesis 1a (H1a). *A retailer's strategic intent to strengthen bargaining power positively impacts its emphasis on logistics competence in PL supplier selection.*

The emphasis on a PL supplier's logistics competence can also be driven by the retailer's desire to establish its consumers' store loyalty. If retail chains select experienced PL suppliers and adopt an integrated inventory management system to manage logistics cost-efficiently, they can retain or increase store loyalty by reducing cost, stock-outs, or backorders [29,30]. Responsiveness is also a critical aspect in satisfying customer demands and improving overall customer evaluations of products [31,32]. By sourcing from responsive manufacturers with abilities such as short cycle time and on-time delivery, retail chains can better respond to changing customer needs, which leads to higher customer satisfaction and loyalty. This relationship is formally expressed in the following hypothesis:

Hypothesis 1b (H1b). *A retailer's strategic intent to establish store loyalty positively impacts its emphasis on logistics competence in PL supplier selection.*

Retailers, in an attempt to improve their bargaining position over NB suppliers, may also *de-emphasize* product competence in selecting PL suppliers. In large assembly manufacturing industries, an original equipment manufacturer (OEM) is generally more knowledgeable about the final product than its upstream supply chain members (i.e., component or sub-component suppliers) and thus can better perceive the current and emerging needs of end-customers [33,34]. Using this advantage to strengthen its bargaining power, the OEM selects suppliers on the basis of their product-related capabilities (e.g., cost, quality, lead time, etc.), which enables a more thorough evaluation and monitoring [35,36]. In PL sourcing, retail chains have no such advantage, due to their lack of manufacturing experience and immense product variety—an average U.S. supermarket carries 33,055 items, and PLs represent a unit share of 19.3 percent [37,38]. Retailers often source PLs from small and medium-sized regional manufacturers, accepting their often relatively inferior product capabilities in exchange for necessary resources, such as customer purchase information, to help them identify and test new ideas [23,39]. This complementary partnership also mitigates opportunistic behaviors by the PL suppliers and, in turn, strengthens the retailer's bargaining power over PL suppliers. The distinctive nature of the PL sourcing environment leads to the following hypothesis:

Hypothesis 1c (H1c). *A retailer's strategic intent to strengthen bargaining power negatively impacts its emphasis on product competence in PL supplier selection.*

Retailers endeavor to attract and hold more customers by developing unique product competence. Considering that PLs are exclusively produced for a specific retail chain, a more price-competitive PL lineup attracts price-conscious shoppers and contributes to increased sales [40]. High quality can also increase retail customers' switching costs, binding them to the store, increasing loyalty and preventing attrition to competing chains. By the same token, PL quality problems can harm retailers considerably when it comes to customer store loyalty because customers are more likely to blame the retailer than the manufacturer. Whole Foods Market's fraudulent extra virgin olive oil scandal in 2010 is a well-known example of this risk. Although this problem was relevant to only one of Whole Foods' 2200 PL offerings, the public and media attention over that one specific product severely damaged the brand image of their entire PL lineup but left their supplier's image untarnished. Thus, retailers may select their PL supplier based on product competence to avoid the risk of losing customers, due to their PL suppliers' shortcomings. This is reflected in the following hypothesis.

Hypothesis 1d (H1d). *A retailer's strategic intent to establish store loyalty positively impacts its emphasis on product competence in PL supplier selection.*

3.2. The Effect of Supplier Selection Criteria on Financial Performance

A number of studies have shown the relationship between logistics competence and retailer performance. For instance, with the rapid growth of global PL sourcing, logistics cost and dependability/predictability are critical factors affecting retailer performance. Schramm-Klein and Morschett [41] confirm that logistics cost highly influences a retailer's financial performance. Particularly with current global sourcing trends, firm responsiveness (in terms of delivery lead times, on-time delivery, and non-routine request accommodation) should lead to increased performance. This, therefore, suggests a positive relationship between a retailer's emphasis on logistics competence in selecting PL suppliers and the retailer's resulting financial performance. The logistics competencies provided by the supplier can be a valuable resource in achieving a superior financial performance [4,42]. For example, failure to have the right product in the right place in the right quantity can result not only in lost sales in the short-term but also a longer-term loss of goodwill that leads potential consumers to other retailers. Therefore, the following hypothesis is tested:

Hypothesis 2a (H2a). *A retailer emphasis on logistics competence in supplier selection improves a retailer's financial performance.*

In contrast, recent research has demonstrated that the direct influence of product competence in terms of quality and cost on financial performance wanes or even disappears in the presence of various strategic factors (e.g., [43–45]). Due to the vast and still growing variety of their PL offerings, it is almost impossible for retailers to establish and maintain detailed product-related criteria in selecting suppliers for each PL. Further, the variation in product-related aspects of PL products sold by competing retailers is rapidly decreasing. More NB manufacturers are using their expertise and excess production capacity to produce PLs for retailers, and many small quality manufacturers specialized in particular product lines are employed by both retailers and NB manufacturers [38,46]. Under such circumstances, devoting limited corporate resources to understanding diverse product-related aspects can result in negative financial consequences for retailers. This argument suggests the following hypothesis.

Hypothesis 2b (H2b). *A retailer emphasis on product competence in supplier selection diminishes a retailer's financial performance.*

3.3. The Moderating Effect of Product Type

Contingency theory suggests that relationships are influenced by environmental variables. As such, contingencies need to be considered in order to appropriately modify strategies and ensuing actions. One important contingency in the retail industry is product type (i.e., whether the product is a food or a non-food product), which is one of the most commonly employed classifications in the industry. With the aggressive expansion of grocery sections in regular merchandise stores, for instance, retail giants such as Target and Walmart have built dedicated grocery teams that only work in the grocery section of the store and equipped them with specialized training. This dichotomy is also the most commonly accepted classification for PLs in a number of market databases, such as IBISWorld, Mintel Report, Nielsen Company, and others. Our investigation, therefore, also considers whether the hypothesized relationships are moderated by product type.

Specifically, as food products generally have a shorter life span than non-food products, retailers use different supply chain, warehousing, and sourcing strategies for each. For example, the relationship between strategic intent and competence may be positively moderated by the perishability of food products. This is reasonable to expect since there is a greater likelihood that food products will spoil in transit when there are delays and disruptions. In addition, food contamination and spoilage can pose a significant health risk to consumers and affect the reputation of the retailer, compromising both retailer loyalty and bargaining power. With the potential for food contamination and terrorist acts in the current environment, it is expected that the capability of the PL supplier to guard against such logistics failures is more important in food than in non-food product categories. Thus, we hypothesize that the relationships between a retailer's strategic intent, the ensuing supplier selection criteria, and performance are moderated by product type, and that these relationships will be stronger for food products.

Hypothesis 3 (H3). *Product type moderates the relationships between a retailer's strategic intent, supplier selection criteria (i.e., logistics and product competences), and financial performance, in that the path coefficients are greater for food products. This should hold true for all six relationships proposed above (H3_1a–H3_1d, H3_2a, and H3_2b).*

4. Data Collection and Measures

After developing the research model, the underlying constructs, and their measurement items, we used a large-scale survey to test the hypotheses. The lack of data regarding the PL relationship between retailers and manufacturers has restricted the empirical verification of inter-firm relationship theories [47]. Within this challenging context, we were able to collect data from major South Korean retail chains. According to Euromonitor International, the South Korean retail industry is, together with China and Russia, one of the fastest-growing retail markets in the world. As a result of its rapid consolidation in recent years, the total sales volume of the top three retailers amounted to 80 percent of the South Korean retail industry [48]. This fact, along with price competition among hypermarkets, department stores, and television home-shopping channels, has produced a fast proliferation of PLs. The highly concentrated market structure allowed us to collect data from a few dominant players that captures a comprehensive picture of the PL market. Thus, the survey was initiated by contacting the PL purchasing managers of major South Korean retail chains identified by Euromonitor International and the membership list of the Korea Chain Stores Association. Upon acceptance of our request to participate, the questionnaire was sent by e-mail to the respective PL managers. Follow-up phone calls and e-mails were utilized every two to three days to encourage the respondents to complete and return the surveys. All in all, a total of 13 out of 20 retail chains agreed to participate and provided information, yielding a final sample size of 211. More importantly, the study's sample comprised eight of the top ten PL retail supply chains in South Korea, which collectively represent more than 90 percent of the entire South Korean retail market in terms of total sales volume, offering a

comprehensive assessment. The foods/non-foods ratio of the PL segment in South Korean retail chains is 57.4/42.6 percent, respectively, which approximates the ratio for U.S. retail chains (60.9/39.1 percent).

Our preliminary interviews revealed that the most appropriate unit of analysis is the individual PL product (not the individual retailer or product category), since retailers usually do not have a single strategy encompassing all their PLs. Therefore, every product could be associated with a distinctly different strategic intent and ensuing supplier selection criteria [49]. In preparation for the survey, we also observed that retail chains had distinctly different strategic intents, even for products in the same product category; for example, drinking water and soft drinks had different strategic intents although they are in the same product category ('beverages'). While the overriding strategic intent for the former was primarily the increase of customer loyalty, the strategy pursued the latter was characterized by an emphasis on achieving bargaining power over NB suppliers. Given these differences, our survey asked PL purchasing managers to respond to a series of questions about the individual PL product(s) they are responsible for sourcing from NB manufacturers.

The model uses both formative and reflective measures and includes assessments to evaluate whether to model the competences as a formative or reflective construct [50–52]. The formative approach is chosen for logistics and product competence since: (1) the indicators are defining characteristics of the construct; (2) changes in the indicators should cause changes in the construct; (3) changes in the construct do not necessarily cause changes in the indicator; (4) it is not necessary for indicators to co-vary; and (5) indicators are not required to have the same antecedents and consequences, nor have high internal consistency reliability. All item measures and their underlying constructs were developed on the basis of previous literature in the field. They are summarized in Appendix A, including references to illustrative studies using similar measurement items, offering theoretical substantiation for our selection.

5. Data Analysis and Results

Partial least squares (PLS) path modeling, a component-based procedure, is applied to test the construct relationships, due to the exploratory nature of the research and the use of both reflective and formative construct measurement items.

5.1. Measurement Model Analysis

Confirmatory factor analysis is used to assess the internal and external consistency of all constructs measured with multi-item reflective indicators. Content validity was established on the basis of interviews with retail executives. Table 1 presents the factor loadings, demonstrating the significant relationships of the items with their underlying theoretical constructs; average variance extracted (AVE) values are also all well above the criterion of 0.50 [53]. These results collectively provide evidence of convergent validity. Next, discriminant validity is assessed by comparing the squared correlation between two constructs to their respective AVE [53,54]. None of the squared correlations are equal to or higher than the AVE for each individual construct. Hence, it can be concluded that there is discriminant validity among theoretical constructs. In addition, reliability by Cronbach's coefficient alpha and composite reliabilities (CR) are assessed. As shown in Table 1, all measurement models have high reliabilities with Cronbach alpha values exceeding 0.80 and CR values equal to 0.70 or higher. Taken together, these results indicate that the theoretical constructs exhibit good psychometric properties.

Table 1. Properties of measurement model for *reflective* constructs.

Item Measure	Mean	SD	AVE ¹	CR ¹	α ¹	Factor Loading ¹
<i>Enhancing Bargaining Power</i>			0.87	0.97	0.95	
Lower the purchasing cost from NBs	3.40	1.37				0.92
Press NBs to do more sales promotions	3.21	1.31				0.90
Supply priority of key (or best-selling) NBs in a high-demand season	3.53	1.36				0.93
Impute shelf management costs onto NB manufacturers	3.63	1.30				0.98
<i>Establishing Store Loyalty</i>			0.85	0.96	0.94	
Increase customer retention (or repurchase) rate	3.56	1.24				0.90
Make favorable impression, and build customer trust	3.55	1.19				0.98
Induce customers to customer loyalty program	3.46	1.24				0.91
Voluntary recommendation of existing customers to others	3.09	1.24				0.90
<i>Financial Performance</i>			0.92	0.98	0.97	
Category sales	3.89	1.13				0.95
Category profitability	3.69	1.21				0.94
Category market share	3.80	1.13				0.94
Category customer satisfaction (based on the number of customer complaints)	4.03	1.07				0.99

¹ Cronbach's alpha ≥ 0.80 ; average variance extracted [AVE] ≥ 0.50 ; composite reliability [CR] ≥ 0.70 ; factor loading ≥ 0.50 .

Diamantopoulos and Winklhofer [55] suggest that conventional procedures for examining the validity and reliability of reflective constructs are not suitable for formative constructs. Thus, the model weights are examined to assess the validity of the two formative constructs (i.e., product competence and logistics competence), which provides information regarding how each indicator contributes to the respective construct [56,57]. As there is no particular benchmark to be exceeded for weights [55], the statistical significance of each item measure is tested using its t-value ($p < 0.1$ if $t > 1.645$; $p < 0.05$ if $t > 1.96$; $p < 0.01$ if $t > 2.58$) [51]. Significance tests are conducted with the use of 500 subsamples via a bootstrapping algorithm provided by SmartPLS. Another concern with formative constructs is potential multi-collinearity with overlapping dimensions, which can produce unstable estimates [56]. Hence, a collinearity test is used to test all dimensions. Along with the mean values and standard deviations of the responses, Table 2 contains the measurement properties for the items comprising the two formative constructs, including item weights, t-statistics, and variance inflation factors. As presented in Table 2, five significant items are retained for each formative construct for further analysis. Table 3 provides the correlations.

Table 2. Properties of measurement model for *formative* constructs.

Item Measure	Mean	SD	Weight	t-Statistic	VIF
Product Competence					
Low production cost [†]	3.12	1.18	0.61	3.46	10.41
Quantity discounts **	2.96	1.23	0.14	2.54	4.22
Purchasing department (or division) competence [†]	2.98	1.22	−0.15	1.46	4.74
Short production lead time *	2.80	1.18	0.01	2.19	4.143
Commitment to quality **	3.43	1.25	0.22	4.43	7.687
Testing capability **	3.47	1.20	0.10	4.23	6.69
Commitment to continuous improvement in product and process *	3.25	1.28	−0.10	2.45	6.37
Industry knowledge [†]	3.57	1.23	0.38	4.70	21.17
Logistics Competence					
Transportation cost **	3.37	1.30	0.16	4.57	9.98
Geographical compatibility/proximity [†]	3.45	1.25	0.27	2.50	10.01
Inventory storage cost of holding finished goods [†]	3.54	1.24	0.09	2.92	30.45
Information processing cost (costs such as those associated with order entry, order follow/updating, and invoicing) **	3.25	1.27	−0.03	3.13	7.33
Prompt response to quick demand changeovers *	3.22	1.27	0.42	2.20	8.67
Rapid order-to-shipment **	3.16	1.23	0.14	3.01	7.50
Ability to meet delivery due dates **	3.27	1.20	0.35	3.70	9.63
Logistics information systems [†]	3.36	1.22	−0.23	3.35	30.44

* Significant at $p \leq 0.05$; ** significant at $p \leq 0.01$; variance influence factor [VIF] < 10; [†] indicates that item was eliminated during scale purification

Table 3. Latent variable correlations.

	BP	SL	PRC	NPRC	PERF
BP	1.0000				
SL	−0.1181	1.0000			
PRC	−0.2646	−0.0863	1.0000		
NPRC	0.3643	0.1314	−0.7187	1.0000	
PERF	0.1956	0.1485	−0.5747	0.7007	1.0000

Harman's single factor test, one of the most commonly used procedures to test for common method bias, which would result in one general factor accounting for the majority of variance in the variables, is employed [58]. An unrotated factor analysis on items related to the dependent and independent variables demonstrated that no general factor was apparent, since the first factor captured only 31.43 percent of the data variance. However, there are several factors extracted with eigenvalues exceeding 1.0, accounting for 87.04 percent of the total variance in the data. In addition, the respondents had complete responsibility for managing the specific PL items, and they were highly knowledgeable about the PL products; therefore, a social desirability effect in responding to the survey is judged to be minimal. Thus, a common method bias was deemed to not be of serious concern in this study.

5.2. Path Model Analysis

Structural relations among strategic intent, supplier selection criteria, and financial performance are investigated via PLS path modeling. PLS path modeling does not optimize any global scalar function, unlike other covariance-based techniques (e.g., LISREL), nor does it provide global fit indices to validate the model. Thus, the explained variance of endogenous variables (R^2), path coefficients, and t -values are commonly used to determine the overall model fit (or goodness-of-fit) in the component-based PLS approach [50]. As can be seen in Table 4, the R^2 values are reasonably high for all endogenous variables in accordance with Cohen's [59] thresholds (low if $0.02 \leq R^2 \leq 0.13$; moderate if $0.13 \leq R^2 \leq 0.26$; high if $R^2 > 0.26$). Table 4 also presents the t -values of the path coefficients (β_1 and β_2) and summarizes

the results of the hypotheses tests. The β_1 and β_2 parameters are calculated on the basis of the total sample and 500 subsamples each, respectively, with little difference between the two parameters indicating stable estimates (Chin et al., 2003). Of note is also the greater R^2 for logistics competence, which strengthens the general notion that logistics, rather than product competence, is the principal supplier selection criterion emanating from the strategic intents considered.

Table 4. Results of path model analysis.

	Values	Original Sample (β_1)	Subsample Mean (β_2)	t-Statistic	Results
<i>Explained Variance (R^2)</i>					
PC	0.37	-	-	-	-
LC	0.62	-	-	-	-
PERF	0.54	-	-	-	-
<i>Structural Paths</i>					
BP \rightarrow LC (H_{1a})	-	0.20	0.20	3.94 **	Accepted
SL \rightarrow LC (H_{1b})	-	0.15	0.15	2.97 **	Accepted
BP \rightarrow PC (H_{1c})	-	-0.14	-0.14	2.33 *	Accepted
SL \rightarrow PC (H_{1d})	-	-0.05	-0.05	0.98	Rejected
LC \rightarrow PERF (H_{2a})	-	0.64	0.64	7.97 **	Accepted
PC \rightarrow PERF (H_{2b})	-	-0.15	-0.15	2.71 **	Accepted
<i>Moderating Paths</i>					
BP*CAT \rightarrow LC (H_{3_1a})	-	-0.11	-0.10	2.24 *	Accepted
SL*CAT \rightarrow LC (H_{3_1b})	-	-0.03	-0.04	0.76	Rejected
BP*CAT \rightarrow PC (H_{3_1c})	-	0.12	0.12	2.01 *	Accepted
SL*CAT \rightarrow PC (H_{3_1d})	-	0.05	0.06	0.94	Rejected
LC*CAT \rightarrow PERF (H_{3_2a})	-	0.04	0.04	0.77	Rejected
PC*CAT \rightarrow PERF (H_{3_2b})	-	-0.21	-0.21	4.31 **	Accepted

* Significant at $p \leq 0.05$; ** significant at $p \leq 0.01$. Enhancing bargaining power (BP); establishing store loyalty (SL); product competence (PC); logistics competence (LC); financial performance (PERF); product type (CAT)

The moderating effect of product type is incorporated as a dichotomous variable (food = 1, non-food = 2) in the path model by applying the commonly used two-stage approach [60,61]. As such, the main effect PLS path model including all the exogenous, moderator, and endogenous variables, is run to estimate the latent variable scores in the first stage. Next, interaction terms are generated as the element-wise product of the previously calculated latent variable scores of the exogenous moderator variables, with them then being re-inserted into the path model as dependent variables on the latent variable scores of the endogenous variable. Due to this element-wise multiplication of latent variable scores for estimating moderating effects, dummy variables of 1 and 2 are chosen, not 0 and 1. Although Chin et al. [51] limited the use of this approach to cases when both the exogenous and the moderating variable are formative, Henseler and Chin [60] demonstrated that this limitation is not necessary (refer to Table 5 for the PL product type—food or non-food products—classification).

Table 5. Product type classification.

Product Type	Items
Food Products	Instant coffee, milk, instant noodles, red pepper paste, rice, bottled water, ice cream, sushi, cola, eggs, strawberry jam, canned liquid coffee, and canned ham
Non-Food Products	Paper towel, toilet paper, diaper, detergent, wet tissue, paper cup, toothpaste, band aid, cook pot, soap, and shampoo

Table 4 reveals the selective moderating role of product type in the relationships between strategic intent, supplier selection criteria, and financial performance. Since the interaction terms do not have a consistent significant impact on their respective dependent variables, there is only partial support for hypothesis 3. Specifically, on the one hand, the relationship between bargaining power and

logistics competence (H_{1a}) is significantly moderated by product category, with the relationship being emphasized for food products ($\beta = -0.11$, $t = 2.24$), offering support for H_{3_1a} . The test result for H_{3_1c} , on the other hand, indicates a less negative relationship between bargaining power and product competence (H_{1c}) when non-food products are the subject of negotiations, suggesting that product competence is de-emphasized to a lesser degree when compared to negotiations for food products ($\beta = 0.12$, $t = 2.01$). In other words, reduced product perishability makes the supplier's product competence more important when increased bargaining power is desired. This supports the above discussion that logistics competence is particularly crucial for food products (as opposed to product competence). In contrast, product competence appears to be more crucial for non-food products. The relationship between logistics competence and financial performance (H_{2b}) is also significantly moderated by product category, suggesting a stronger impact of logistics competence on performance for food products, thus supporting H_{3_2b} ($\beta = -0.21$, $t = 4.31$). The other three interaction terms were not statistically significant, indicating that product type does not influence these relationships.

6. Discussion

While logistics and supply chain management literature has highlighted the sourcing decision as a critical antecedent for better resource allocations and performance of retailers in the PL context, previous research has neglected the consideration of logistics competence in PL supplier selection decisions. Relying on the strategic intent–strategic choice perspective, this research investigated the influence of strategic intent on logistics and product competence as supplier selection criteria and the ensuing impact on financial performance. Besides, the moderating effect of product type was explored. Overall, this research offers valuable insights regarding the role of logistics competence and provides essential guidance for academic theory development and managerial practice.

6.1. Theoretical and Managerial Contributions

Previous studies conducted in manufacturing settings have taken a relational perspective on studying buyer-supplier relationship and underscored the importance of early supplier involvement and long-term supplier relationship that are not always viable in the PL sourcing environment. This study is one of few which adopts a strategic decision-making perspective in the PL context, enabling us to offer interesting and previously unidentified insights. Despite the salient differences in the PL context, previous studies regarding contract manufacturing have not offered significant insight regarding how retailers should select suppliers to enhance performance in the dynamic and rapidly growing PL industry. From the inter-firm relationship perspective, recent studies have asserted that a power shift from manufacturers to retailers underlies the high performance of PLs (e.g., [62,63]). However, not every new PL yields high performance in light of many failed PLs, and some studies refute a power shift in retail supply chains (e.g., [64,65]). Therefore, evidence regarding the influence of a retailer's power in the PL segment has been inconclusive. Our study contributes to a better understanding of the relationship between the retailer's desire to achieve power (which was modeled as a strategic intent) and the financial performance in consideration of the manufacturer's competence and product type. The results collectively suggest that a positive performance effects stem from an emphasis on a PL supplier's logistics competence as driven by a buyer's strategic intent, rather than directly from an inter-firm power shift or customers being locked in. The usefulness of the strategic intent to examine the supplier selection decision is therefore demonstrated by this study.

The results also suggest that logistics-related PL supplier selection aspects (i.e., logistics competence) play a critical role vis-a-vis the strategic intents of bargaining power and customer loyalty and may trump more product-related selection criteria. In Deloitte's 2015–2016 Private Label Sourcing Survey, retailers reported the traditional aspects surrounding product competence, such as total cost, product quality, and ability to scale, as top criteria for their PL supplier choice, while perceiving the increase of raw material cost, labor wages, and fuel price as their most urgent challenges. This clearly reveals the strategic discrepancy between retailers' current PL sourcing practices and actions needed. Our analysis

shows that a retailer's focus on such traditional criteria can even compromise a PL's contribution to the strategic intents of the retailer, by directing limited corporate resources to non-differentiable capabilities. This finding extends recent studies questioning the link between product competence and performance in manufacturing firms. Further, this study highlights the pivotal role of logistics competence in PL sourcing and ensuing financial performance in comparison with product competence. It confirms the theoretical notion that product competence might not generate a competitive advantage in the hypercompetitive and transparent environment of today. This can offer one possible explanation for the question posed in the earlier part of this research: why not all PLs (even of the same retailer) are thriving in a rapidly growing PL industry.

Moreover, the moderating influence of the contextual variable of product type was explored. The results of the study demonstrate that product category is an essential contingency in PL supplier selection decisions. This has not been recognized in previous studies. The product category dimension introduces additional considerations, including safety, transit security, product integrity, speed of order fulfillment (size, variety etc.), and responsiveness, which can all be characterized as logistics competencies. For food products, the study results illustrate that the structural relationships linking bargaining power, logistics competence, and financial performance are positively moderated. The results of the PLS path model corroborate the argument that a buying firm can pursue its strategic intents in the context of PLs by appropriately emphasizing supplier selection criteria, which in turn influence financial performance. The contingent effects might be equally important in other PL contexts. For example, for pharmaceutical PL products, logistics competence may dominate other supplier selection criteria.

Overall, the results of this study support the current trends of the PL industry: (1) PL customers are not attracted by a low price alone, and (2) the quality gap between PL and NB products is narrowing rapidly as more NB manufacturers participate in PL production. These phenomena collectively show that conventional product-related supplier selection criteria are not order-winners for suppliers anymore but rather order-qualifiers. An alternative interpretation of this finding can be drawn from the co-opetitive nature of retailer-NB supplier relationships. In other words, in the PL supply chain, while the retailer is cooperating with NB manufacturers, in that the retailer sells NB products, the retailer is also competing with NB manufacturers by offering PLs [66]. Our finding may suggest that, under co-opetition, retailers and their PL suppliers have common interests in product-related issues such as price and quality (i.e., product competence). Cooperation in the retailer-PL supplier relationship stems from the PL supplier's need for the retailer's distribution channels to deliver their products to market, and the retailer's need for the PL suppliers' manufacturing and product-market knowledge. However, in retail stores, the PLs compete for sales with the NBs, with the former usually representing a higher profit margin for the retailer than the latter. This aspect introduces competition in the exchange relationship. The negative effect of this competition for the NB is ameliorated by the NB manufacturer's superior knowledge assets, resource endowments, and information asymmetry. The retailer, by emphasizing the logistics competence of the PL supplier (i.e., NB manufacturer), is better able to serve the PL market segment despite the competition from NBs. By noting and discussing the presence of co-opetition in the PL context, the present study makes an additional theoretical contribution to the field.

These results also provide a cautionary tale for PL suppliers in the retail industry, in that retailers place increasingly stringent requirements on their suppliers when pursuing their primary strategic intents of bargaining power and store loyalty. While providing a good quality product at a reasonable cost may have been sufficient in the past to win a retailer's business, from a PL manufacturer's standpoint, this research offers new avenues for differentiation and the achievement of superior performance through an emphasis on logistics-related factors. Theoretically, it can be reasoned that logistics competence represents a resource under the resource-based view for both the retailer and the supplier, due to its ability to contribute to competitive performance. The results further provide interesting contrasts regarding the differential impact of strategic intent (i.e., bargaining power) on supplier

selection criteria for two distinct product categories. As such, the results complement and extend prior studies that have considered the impact of product type on supply chain design (e.g., [67–69]).

6.2. Limitations and Future Directions

This study is not without limitations. First, our exploratory research applying the strategic choice theory to the PL sourcing context can be further strengthened through extensions considering mimicking competitors, price discrimination, and acquisition of new technical skills and management competencies. For example, retail chains may introduce their own PLs to mimic leading chains or competitors or may decide to price-discriminate among customers that have different willingness-to-pay levels for different quality levels [70]. Future research should therefore extend this initial framework to consider the impact of other strategic intents on supplier selection criteria and the ensuing performance. It should also be noted that this study is conducted in a specific national context (i.e., South Korean retailers). We expect, however, the role of logistics competence in PL sourcing to be largely the same in the U.S. and Canada, whose ratios of logistics cost to gross domestic product are very similar to the ratio in South Korea (8.5% in the U.S., 9% in Canada, and 9% in South Korea). The logistics competence of suppliers is likely to be more critical in other economies with higher logistics cost ratios, such as Mexico (12%), India (13%), or China (18%). Future research is encouraged to replicate the current model in different national and cultural environments to formally test this conjecture.

Lastly, the perceptual performance measures might not be fully reflective of actual financial performance. This issue could be resolved by using accounting-based performance measures, such as return on assets, return on sales, cost-of-goods-sold/sales ratio, sales/assets, and so forth and include them in an expanded survey questionnaire. Unfortunately, very few sourcing managers shared these objective financial performance data on the individual product level. In support of the perceptual measures used, the literature has largely accepted the use of non-financial performance measures, such as customer satisfaction, process efficiency, innovation, sustainability, and employee satisfaction (e.g., [71–74]). However, future research should include more accounting-based financial and survey-based non-financial performance measures.

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Appendix A

Table A1. Item Measures and Related Literature.

Item Measure	Related Literature
<i>Enhancing Bargaining Power</i> ¹	
Lower the purchasing cost from NBs	Herstein and Jaffe (2007); Juhl et al. (2006)
Press NBs to do more sales promotions	Dobson (2004)
Supply priority of key (or best-selling) NBs in a high-demand season	Dobson (2004)
Impute shelf management costs onto NB manufacturers	Dobson (2004)
<i>Establishing Store Loyalty</i> ¹	
Increase customer retention (or repurchase) rate	Daugherty et al. (1998); Reynolds and Arnold (2000)
Make favorable impression, and build customer trust	Proto and Supino (1999)
Induce customers to customer loyalty program	Berman (2006); Ferguson (2006)
Voluntary recommendation of existing customers to others	Selnes and Hansen (2001)

Table A1. Cont.

Item Measure	Related Literature
Product Competence ²	
Low production cost	Lasch and Janker (2005); Şen et al. (2008)
Quantity discounts	Bergès-Sennou (2006); Lasch and Janker (2005)
Purchasing department (or division) competence	Das and Narasimhan (2000)
Short production lead time	Shin et al. (2000)
Commitment to quality	Foster and Ogden (2008); Narasimhan et al. (2008)
Testing capability	Hsu et al. (2006); Şen et al. (2008)
Commitment to continuous improvement in product and process	Narasimhan et al. (2008)
Industry knowledge	Hsu et al. (2006)
Logistics Competence ²	
Transportation cost	Bowersox et al. (2007)
Geographical compatibility/proximity	Hesse and Rodrigue (2004)
Inventory storage cost of holding finished goods	Bowersox et al. (2007)
Information processing cost (costs such as those associated with order entry, order follow/updates, and invoicing)	Gunasekaran et al. (2001); Stewart (1995)
Prompt response to quick demand changeovers	Lawson et al. (2009); Swink et al. (2005)
Rapid order-to-shipment	Bowersox et al. (2007)
Ability to meet delivery due dates	Gunasekaran et al. (2004); Lawson et al. (2009)
Logistics information systems	Shang and Marlow (2005); Vickery et al. (2010)
Financial Performance ³	
Category sales	Fawcett et al. (1997); Morgan et al. (2007)
Category profitability	Ailawadi and Harlam (2004); Lynch et al. (2000); Rabinovich et al. (2008)
Category market share	Ellinger et al. (2002); Fawcett et al. (1997); Wisner (2003)
Category customer satisfaction (based on the number of customer complaints)	Ellinger et al. (2002); Fynes et al. (2005)

Question wording and scale anchors: ¹ Please indicate your degree of agreement to the following statements: Our firm introduced the previously specified PL product to ... (5-point Likert scale, anchored at 1 = "strongly disagree" and 5 = "strongly agree"); ² Please indicate how much you emphasize each of the following criteria for selecting the supplier(s) for the previously specified PL product (5-point Likert scale, anchored at 1 = "not important, or not considered" and 5 = "extremely important, or very seriously considered"); ³ Please indicate the performance improvement for the previously specified PL product (5-point Likert scale with the anchors of 1 = "deteriorated," 2 = "unchanged," 3 = "slightly improved," 4 = "moderately improved," and 5 = "markedly improved").

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