

Conceptual Model for Effects of the Buyer Supplier Relationship, Purchasing Process, and Measures of Performance in Supply Chains

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Abstract – Research into improving performance of supply chains is a dynamic field. As a result of the unpredictability of today's economic environment, a growing number of firms are looking for methods of improving performance indicators and exerting tighter management over their operations. The purchasing process and the buyer-supplier relationships are two aspects of modern retail supply chains that will be studied in depth, along with the contextual reasons that have led to their development in this particular cultural setting. The key objectives of this study are threefold: (1) to find the antecedents associated to each determinant; (2) to define the determinants themselves; and (3) to offer the conceptual model for this specific setting. This study contributes by developing an applicable conceptual framework for performance of supply chains for the preponderance of SMEs in China.

Keywords – Small and Medium-sized Enterprises (SMEs), Supply Chain Management (SCM), Large Enterprises (LEs)

I. INTRODUCTION

Businesses are increasingly outsourcing non-core operations to third parties as they focus on what they do best. As a result, supply chain management has evolved as an important component in supporting successful management and allowing suppliers to gain major competitive advantages. Suppliers' long-term competency influences company competitiveness, and the quality of suppliers' goods directly affects firm products. Large Enterprises (LEs) want suppliers who can have a large and efficient influence on the value of their whole supply chain. Small and Medium-sized Enterprises (SMEs) are increasingly important in Large Enterprises (LEs) supply chains, including those of suppliers, distributors, manufacturers, and consumers. Because of their responsiveness to changes in the business climate, adaptability in response to customer requirements, and speed of decision making, Small and Medium-Sized Enterprises (SMEs) are well-suited to adapt to the ever-changing demands of their customers and the rapid development of new technologies. SMEs in the supply chain have fewer competitive advantages and are more vulnerable than LEs due to their size, resources, and other typical characteristics.

Despite the large number SMEs and the crucial role, they play in the supply chain, there is little literature on SMEs and Supply Chain Management (SCM) techniques inside SMEs. There is a lot of untapped potential in researching SMEs and the Supply Chain Management (SCM) strategies of LEs, especially in investigating SMEs' flexibility and longevity in addressing the increasing needs of LEs' supply chains. This paper will investigate the link between SMEs and LEs' supply networks in order to identify issues and propose solutions that would enhance SMEs' performance and give them their appropriate position in the aforementioned supply chains.

Proper supply chain management may enhance corporate performance and the attainment of corporate goals e.g., high competition, high profitability, and high customer service. The major goals of SCM are to enhance the bottom-line rate of performance, enhance customer service, and cost competition within the supply chain, and minimize time and money spent on non-value-added processes. According to Atkins, Sener, Drake, and Marley [1], good supply chain management is critical for enterprises in Australia's textile, garment, and footwear sectors to establish and retain a competitive advantage. Many firms are looking for ways to increase productivity as a consequence of the market's volatility and the necessity to maintain greater control over corporate operations. The purpose of measuring performance is to make supply chains efficient and effective. According to de Souza, Kerber, Bouzon, and Rodriguez [2], the purpose of performance evaluation in logistics operations is to increase revenue growth and shareholder value while simultaneously cutting operating costs and increasing customer experience.

Major production takes place in Asian nations, and three global brands e.g., Nike (USA), Adidas (Europe), and Reebok (Japan)—dominate global sales. Sports superstars, sports-themed TV programs, and sports-related activities all have a significant impact on this area. The sportswear sector, like the fashion industry, is very seasonal, with items having a short shelf life, demand being highly unpredictable, and purchases made on the spur of the moment. The sporting calendar, like the weather, influences the shifting of the seasons. For a large shop like Sport Obermeyer, stockout and markdown costs would equal to more than 10% of sales. Thus, controlling the supply chain in the sportswear business is critical to preventing stock from getting stale owing to the short product life cycle, which would result in stockouts and markdowns, lowering retail sales. The Taiwanese government intends to develop the island into a "Global Logistics Center," which is why this research focuses on Taiwan. This program is motivated by the island's advantageous geographic position in the Asia-Pacific region and its role as a hub linking Northeast Asia, coastal mainland China, and Southeast Asia. In addition, SCM in Taiwan is in its infancy, notably in the retail sector.

Asia's supply chain has distinct socioeconomic characteristics, such as a market controlled by huge global suppliers yet dominated by little individual retailers. A similar tendency may be witnessed in Taiwan's retail supply chains today. There is a lack of empirical study on the Taiwan retailing performance. Thus, this paper purposes to (1) identify and describe the measures of performance within the supply chains; (2) describe those antecedents linked with every measure; and (3) present a conceptual framework in this specific setting. A conceptual framework for assessing supply chain performance in Taiwan will be provided in this paper, along with examples of some of the aspects that contribute to that measurement. The remaining part of the paper is organized as follows: Section II presents a detailed conceptual framework for the research. Section III presents a discussion of the buyer-supplier relationship; Section IV focusses on the purchasing process of consumers in establishing the relationship; and Section V focusses on the measures of supply chain performance. Lastly, Section VI draws final remarks to the paper, and presents directions for future research.

II. CONCEPTUAL MODEL

Companies increasingly put a priority on connecting with important stakeholders, which has accelerated the relationship-building process. Many buyers are consolidating their purchases to a single supplier in order to enhance efficiency, cut costs, simplify processes, and accelerate time to market. The ultimate goal of these capacity building programs is to save money. There are two ways that may be used to achieve these savings models. An adversarial model is one in which consumers compete against one another to drive down pricing. A buyer and seller working together may result in cost savings for both parties. Better inventory management and the elimination of unnecessary procedures contribute to these savings. According to studies on strategic supplier alliances, a kind of long-term, collaborative engagement, buyers choose deeper collaborations when they wish to control supply dependability or affect supplier quality and delivery dates. Suppliers value long-term, stable markets, as well as the opportunity to exercise some influence on the quality of their clients.

Recent studies of the buyer-supplier dynamic have mostly concentrated on either the fundamentals of the partnership or its effect on performance. Coordination of effort, commitment to the relationship, communication, creating trust, adaptability, and reliance on one another are all attributes widely acknowledged as essential to long-term relationships. The underlying assumption is that the relationship in issue is one of collaboration rather than passivity. In this aspect, supplier alliance research finds similarities. The logic for these features is because without them, buyers and sellers would have less opportunity to interact and produce win-win outcomes. Buyers and sellers will be incentivized to protect their own interests if they do not get signals and/or actions indicating a willingness to collaborate to develop rather than just transfer value throughout the supply chain. People who are prepared to cooperate and share risks, on the other hand, may benefit in areas like as product development, technology implementation, and problem resolution, in addition to cost, quality, delivery, and productivity.

The buyer and supplier connection, as well as the purchase process, are central to relationship marketing, purchasing, and B2B marketing. Next, we'll take a look at the literature in question through the lens of the multilevel conceptual model and go into the specifics and assumptions. One of the most critical aspects of supply chain synchronization is the communication that takes place between consumers and suppliers throughout the whole supply chain. A company's success depends on its ability to establish and maintain mutually beneficial relationships with its partners along the supply chain. Rapid changes in customer demand and irregular market movements all contribute to retail's high volatility. The diversity of the natural world reflects uncertainty in the global business environment. Merchants should vary their channel partners and maintain their connections with them fairly flexible in order to better adapt to the ever-changing demands of consumers and the large range of items on sale. Several Chinese empirical studies support the claims that a company's manufacturer-distributor ties and *guanxi* play a significant role in the success of Chinese export initiatives, as do manufacturer-buyer relationships. Long-term customer connections result in higher profitability and returns on investment for firms than short-term transactions.

According to Marques, Lontra, Wanke, and Antunes [3], positive buyer-supplier interactions may boost both manufacturer and supplier performance, as well as supply chain performance. To better understand the impact of buyer-supplier interactions on SCM is crucial for two main reasons. Firstly, it is usual practice in Taiwan's distribution system for manufacturers, distributors, and retailers to develop close, personal connections with one another. Secondly, the substance of cross-cultural contextual components may be lost in translation from Literary works on relationship marketing or

channel relationships. This implies that it is critical to include the cultural context of retailer-supplier relationships while constructing theoretical frameworks.

However, experts in the field and academia agree that a company's purchasing decisions are critical to its success, and that a well-executed purchasing strategy can lead to increased profits, market share, and technological innovation. The efficacy of a company's SCM strategy, as well as its financial and commercial performance, may be influenced by its purchasing habits. Retailers place orders with their overseas suppliers' months in advance of the season, increasing the possibility of obsolescence and stock-outs. The longer pipeline exacerbates both supply chain inefficiencies and the cost of retaining extra inventories. Furthermore, market demand and sales may be influenced by variables such as the economy, weather, consumer preference, sports events, a shortage of equivalent supply, and so on throughout the selling season.

III. BUYER-SUPPLIER RELATIONSHIP

The term "buyer-supplier relationship" was coined by Bohme, Childerhouse, Deakins, and Corner [4] to describe the dynamic of business dealings between companies. Although inter-organizational operations have always played a significant role in procurement and promotional practice, involvement in buyer-supplier relationships has recently distributed across a number of management disciplines due to the widespread shifts in production methodologies and organizational structures that occurred around the world in the late 20th century. A contract administrator or end user should appreciate good supplier relations just as much as competitive price. Both the buyer and seller benefit from a mutually beneficial transaction. When interacting with a supplier, it is critical to treat them with respect and honesty so that they may provide the best service possible and immediately handle any urgent requirements or unique requests that may occur. When making purchases, it is critical not to overlook public relations. The public's perception of a corporation may be quite valuable. If you treat your suppliers properly and professionally, they will tell their peers about their positive experiences dealing with your firm.

According to Kwateng, Tetteh, Asare, and Manu [5], Supply Chain Management (SCM) is "the systematic, strategic coordination of traditional business operations and processes across different business units inside a particular company and among enterprises throughout the supply chain". SCM is the process of ensuring that all links in the chain, from producers to distributors to retailers, are communicating effectively and efficiently with one another to ensure a seamless flow of products and services. A supply chain, as opposed to SCM, is a series of businesses that work together to transport goods and services between their respective origins and final destinations.

As a result of the synergistic effects of outsourcing, information technology, and globalization, numerous businesses have recently been able to effectively manage collaborative supply networks in which individual business partners each concentrate on a subset of the network's most crucial strategic activities. In some ways, this network of businesses supplying products and services to one another represents a new kind of company. It is unclear how different supply network topologies could affect an organization's performance, and even less is understood about the coordination demands and trade-offs that might exist among the members. Supply chain companies seldom give thought to the inner organizational activities of other supply chain companies, focusing instead on their own outputs and inputs.

Pasaribu, Bulan, Muhar, and Astuty [6] argue that supply chain competence, which includes outsourcing both manufacturing and distribution, helps businesses become more competent as a whole because it allows them to concentrate on what they do best while also building systems of best-in-class partners who all make a contribution to the value chain. One of the reasons supply chain specialization is becoming more frequent is the simplicity with which specialized knowledge can be learned and used, as opposed to having to construct and maintain a whole new and sophisticated talent in-house. Successful SCM necessitates a move away from managing separate activities and toward integrating such operations into strategic supply chain processes. Collaboration, cooperative product creation, shared systems, and information sharing are all part of the business activities of an integrated supply chain.

Supply chain management strategies of large enterprises

To adopt an SCM strategy, a corporation must integrate, cooperate, and collaborate across all key departments and people. This necessitates the development of shared objectives, the open flow of information, and the distribution of duties and incentives. Businesses build capacity by analyzing the value of their work and using integrative principles that allow for the coordination of multiple operations. As a consequence, analyzing suppliers and creating rapport with them is a significant part of this operation, which has an impact on the bottom line. LEs use a wide range of Supply Chain Management (SCM) methods, including as communication with suppliers, supplier evaluation, supplier development (training, dedicated resource investment), and supplier engagement in New Product Development (NPD) processes.

Supplier communication

The construction of a coordinated flow of items and data between producers and consumers is a critical part of efficient supply chain management. According to Black [7], the open flow of information is the single most significant component in the establishment of trust among business partners. Buyer-supplier communication tactics fall into two major categories: traditional methods and new ones. "Traditional" methods are those that have been employed for decades. These include phone calls, faxes, computers, letters, emails, and personal meetings. However, when we speak about cutting-edge communication tactics, we often allude to cyborg links, EDI, and ERP systems. The widespread use of electronic

communication technologies such as email, fax, computer-to-computer linkages, and electronic data interchange has two outcomes: increasing the breadth and depth of accessible information about company activities and making user involvement in different information networks easier. Although technological communication has advanced significantly in recent years, face-to-face encounters between suppliers and customers remain highly appreciated. Quality requirements, jointly attained targets, responsibilities, and making choices or resolving difficulties collaboratively are all examples of information that may be communicated across supply chain members. Building trust between parties requires detailed, timely, and regular communication.

Supplier evaluation

The activities used to evaluate suppliers are intended to pick the most effective suppliers for the company. Many suppliers or vendors are often available for each item to ensure ongoing supply. Progressive companies, on the other hand, often deal with just two to four reputable suppliers for each product. Suppliers are audited on a regular basis to ensure that all acquired items meet industry standards. The ability of suppliers to cut costs while retaining reliability in delivery, product performance, flexibility, and responsiveness are the essential reasons for choosing suppliers. Many writers have worked tirelessly to build best practices and models that employ On-Time Delivery (OTD), components Returned to Suppliers (RTS), and cost as technical and financial metrics to decide which suppliers perform the best. The assessment findings will be used to encourage supplier competitiveness via activities such as awards, certification, and a committed long-term collaboration.

Supplier development

A buyer may have difficulty finding suppliers who are set up to meet their demands in terms of quality, timeliness of delivery, and affordable price. Developing their suppliers in ways that increase their capabilities is therefore one effective method buying organizations may address this issue. According to Yawar and Seuring [8], a "supplier development concept" is any effort made by a buying firm to collaborate with a supplier to improve the latter's performance and/or capabilities in order to better meet the latter's current and long-term supply needs.

The involvement of supplier in new product development processes

The ability of a corporation to innovate, especially in its NPD processes, may be measured by how successfully it cultivates connections with its suppliers. Working with suppliers throughout the NPD process allows companies to benefit from their design and technical know-how. A corporation may also help suppliers respond quickly to competitive markets. Shorter product life cycles, fast advancing technology, increased quality requirements, and cost-cutting by competitors are all pressures that should be pushed wholly to suppliers so that their efforts may be fully rewarded. Supplier initiatives, in turn, are tremendous forces pushing the organization ahead in terms of innovation. According to research done among US and European organizations by Liu, Wei, Li, and Long [9], supplier participation in NPD processes is most successful when it is both regular and intensive, and when it starts early.

According to de Villiers and Becker [10], the "doing, using, and interactive learning" innovation strategy is significantly important than "science and technology innovation" in numerous industries. One rationale is that investing in R&D in-house may be dangerous, but outsourcing is becoming less costly and safer. As a consequence, engaging in external interactive learning with suppliers to build innovation capacity is more successful. Another research found that "56 percent of every sales dollar is spent on the procurement of manufacturing inputs". Thus, suppliers seem to have a substantial impact on the pricing and quality of new goods. In other words, the supplier sector provides several opportunities to improve both the quality and price of new goods. Wei [11] performed an international evaluation of 29 NPD projects and found that "the majority of the Japanese advantage in concept-to-market time was related to supplier participation in the NPD methods." Furthermore, Toyota and Japan have saw significant success with lean manufacturing due to an emphasis on close, long-term ties with their suppliers.

Dimensions of Buyer-supplier Relationship

According to Han and Koo [12], further research is required into the links between relationship qualities such as trust and cooperation and relationship performance. In light of these primary concerns, the talks that follow will concentrate on five critical aspects of the relationship between the buyer and the supplier: power dependencies, collaborations, guanxi (interpersonal engagement), trustworthiness, and communications. By delving into the conception of the relationship between the supplier and retailer on the supply chain within a setting in China, this research makes a significant contribution to the relationships and SCM literatures.

Trust

Establishing and sustaining confidence among business colleagues is critical to the continuous operation of China's sophisticated economic networks as well as the success of individual businesses. Individual trust is built in Chinese culture, while institutional trust is generated in Western civilization. Trust is defined as a person's "professional and personal reputation for honesty and trustworthiness in a business setting." Chinese businesses value their trade partners' honesty and xingyong (credibility). Similar to how Mittal [13] discovered that a distributor's reputation for fairness has a

vital effect of the creditability in the organization, a supplier's satisfactory credibility would inspire greater trust. Trust, according to Sullivan and Peterson, is "...when the parties have confidence in one another, then there will be mechanisms by which the two parties may work through obstacles such as power conflict, low profitability, and so on."

Better performance outputs, such as increased competitiveness and reduced transaction costs, may be achieved in buyer-supplier partnerships when there is trust between purchasers and sellers in the retail business (see **Table 1**). Authors in [14] concluded that trust had the greatest influence on getting cooperation in relationships, but Shi, Park, Sugie, and Fukuzawa [15] revealed that trust influences long-term partnerships. Orsini et al. [16] demonstrate the value of trust in preserving established channel connections. Butt, Shah, and Sheikh [17] found that distributors' confidence in one another and the prevalence of cooperative norms were positively correlated with distributors' overall satisfaction with profitability. To fully grasp the significance of trust in the Chinese buyer-supplier relationship, it is necessary to examine it on two levels: the level of the person and the level of the organization.

Table 1. Benefits and challenges of buyer supplier relationship

Benefits and Challenges		Descriptions
Benefits	Active communication and trust	Keeping lines of communication open between the procurement team and the company's suppliers is critical to their continuing success. By discussing issues freely and honestly, both parties may have a greater understanding of the other's needs and come to trust one another. Developing mutual trust enables for a more productive and cooperative buyer-seller relationship, which may benefit both sides in the long term.
	Minimized costs	Having a solid relationship with a supplier may help you save money on purchases since the supplier may start to favor your firm and provide discounts or other incentives to maintain you as a customer. With the help of suppliers that provide discounts on stock or delivery costs, for example, the procurement department may be able to stay within its budget.
	High efficiency	Efficiency may increase when both sides of a collaborative buyer-seller alliance learn about the other's firm needs and procedures. This means that potential for mutually beneficial cooperation, such as shorter lead times, reduced waste, or a unique method to improving company procedures, may exist. After gaining your confidence as a client, your supplier may seek your advice on how to cope with difficulties such as rising fuel and shipping costs. Since a result, your division may suggest fuel cards for the fleet in order to save travel expenditures, track gasoline use, and expedite administrative work, as fuel cards remove the need for drivers to carry cash. Suppliers owe you a favor since you assisted them.
	Streamlined supply chains	Both parties in a commercial transaction benefit from developing a degree of confidence that enables them to talk openly and frankly about any chances where they may be able to help one another. As a result, by outsourcing activities such as stocktaking to suppliers, the supply chain may be optimized.
Challenges	Preferred methods of communication	Open channels of communication are essential for strong connections between buyers and sellers. However, establishing cooperative buyer-seller relationships is not always easy. The procurement team, buyers, and sellers must devise a strategy for successful communication. The staff may be able to handle many daily emails. However, it's possible that your customers and vendors would rather talk to you once a week by email, video chat on Google Hangout or Zoom, and phone. Overcommunication may harm professional relationships, so finding a happy medium is critical.
	Lack of transparency	When there is a breakdown in communication between a corporation and its suppliers, both sides may misunderstand the other's expectations. Inadequate communication between parties may result in the loss of potentially profitable business opportunities.
	Supply chain disruptions	Internal and external factors may both cause supply chain difficulties. A delivery delay or a reduction in product or service quality are both unanticipated shocks for the procurement team. Even though these circumstances are unlikely to occur often, they have the potential to produce conflict between your procurement staff and your suppliers.
	Mismatching business culture	An organization's culture is critical to its success. As a result, it is critical for cooperative buyer-seller relationships that both firms have cultures that complement rather than compete with one another. Despite everyone's best efforts, there are certain economic situations where the buyer and seller's goals just do not align.

Personal trust.

In the business world, both in the West and in China, trust has become the standard. Mutual trust was essential in the tight network of corporate ties. Personal trust seems to be the foundation of Chinese economic partnerships. Emerson and

Murphy [18] study on "personal trust" in big Taiwanese enterprises showed the relevance of personal trust in the creation of partnerships. Personal ties are valued more than codified contracts in traditional Chinese business culture. The written contracts exist only to supplement the parties' legal duties. Ngai, Jiang, Cheung, Wang, and Tang [19] conclude that the lack of formal contracts demonstrates the channel members' mutual trust.

Confidence in one's own organization. Before conducting business with a new client, Western firms often check their credit history and financial position. The supplier's track record of dealing with other firms is an important aspect in building credibility and winning the buyer's trust. The words or written statement between the supplier and the retailer that can be relied on are known in Chinese as "xingyong" and in the West as "credibility." A person's "credit rating" or "integrity," "credibility," "trustworthiness," or "reputation and character" are all instances of xingyong in business situations.

Several research, including the ones by Boztosun [20], have demonstrated the significance of xingyong in Chinese financial relationships and the beneficial effects of xingyong on trust-based commercial relationships. According to Wang et al's [21] study of Lukang in Taiwan, xingyong is evaluated based on one's success in the commercial sector. If a company's representatives lie or breach other agreements, it will lose its xingyong. Simply said, since it is predicated on trust, xingyong ensures safety and trustworthiness in economic dealings. Cohen, Goodman, Keaveney, Keogh, and Dillenburg [22] went on to explain that trustworthiness is important in sustaining a good relationship. Lastly, the benefits and repercussions of trust, as well as the history of many dimensions of trust in Chinese interactions, highlight the relevance of trust as a success element in defining the relationship between the buyer and the supplier. Thus, the hypothesis below is presented:

H1: Building trust amongst all parties in the supply chain will improve efficiency.

Communication

Due of the risks associated with seasonality and short product lifetimes, small firms have a natural tendency to reduce inventory holding costs and boost revenues from supplier products. Several companies have realized the strategic advantage of replacing physical inventory with data. That is why it is critical for individuals to be able to communicate effectively with one another in all aspects of their lives, from personal to professional. Communication, according to Zeng, Croucher, Kelly, and Chen [23], is "the official and informal exchange of vital and timely information among enterprises." According to Cannon and Perreault, trust is shown by both parties' willingness to provide critical information. Even in Asian enterprises, it may be hard to open up about personal matters like finances due to a lack of trust, which might be seen as a reluctance to provide information. Therefore, it is essential that Marks, Mayo, Ryans Jr, and Armstrong [24] address the potential trade barrier posed by difficulties in information exchange and cross-cultural communication.

Strong channels of communication between channel members improve channel coordination, happiness, and performance. Frequent communication between retailers and suppliers in the fashion clothes industry may allow for faster and more accurate reactions to altering markets, as well as a reduction in the costs and consequences of incorrect projections. If channel members feel protected and encouraged, they are more inclined to offer information upward and foster two-way dialogue. Channel members will benefit from better supply/demand balance and increased earnings as a consequence. When there is a power imbalance in the connection, however, the less powerful channel party is less inclined to disclose information and provide feedback to the dominant party. This indicates that the restricted information flow will harm channel connections and supply chain efficiency. Open channels of communication are required to maintain a solid relationship with your consumers throughout time. Thus, the hypothesis below is presented:

H2: Supply chain efficiency will be significantly impacted by the quality of communication.

Interpersonal Relationship (Guanxi)

Academics have taken an interest in guanxi in Chinese business relationships due to its importance as a "emerging type" of relationship marketing in Asia. Guanxi is a prevalent social phenomenon in Chinese culture that plays an important role in both the economic sector and daily life. Guanxi is a social and professional network in Chinese culture that is highly prized.

Guanxi is the technique of exploiting one's social and professional networks to one's benefit, according to Jesacher-Roessler and Agostini [25]. Guanxi is built on people exchanging favors and tasks. The Chinese are notorious for tightly controlling their firms and putting personal relationships into business choices. Personal interactions between businesses and their families are highly valued in Taiwan. Personal trust is a crucial aspect in creating guanxi and economic relationships in Taiwan. Because the majority of Chinese family businesses are tiny and operated by a small number of family members, they depend heavily on their guanxi network for market access and finance. According to Nguyen and Nguyen [26], personal links between manufacturers, wholesalers, and retailers are valued in Taiwanese society, and merchants should devote significant time and attention to building these connections.

In contrast, the great bulk of published Western books focus on the dynamics of various sorts of enterprises. According to Zhang, Liu, and Xiao [27], existing literature fails to recognize the value of guanxi, or personal ties, in the aspect of B2B marketing. As a result, this study will investigate the role of guanxi in the establishment of a significant number of small retail stores, the guanxi these companies have with both international and domestic suppliers, and the impact this has on the efficiency of their supply chains. Guanxi allows Chinese businesses to coordinate and exercise control over their

overseas economic activities. Guanxi enables economic interactions, disseminates information, and secures resources, according to Mitchell [28].

Social networks (i.e., guanxi) between Silicon Valley, California, and Hsinchu, Taiwan, help in organizing transnational (cross-regional) cooperation in high-technology regional growth. Many Western businesses struggled to maintain long-term commercial connections in Asia because they did not comprehend cultural distinctions in relationships and networks. This is because human ties are so important in Asian company and are a necessary foundation for efficient business. As a result, long-term success in China's business markets necessitates the establishment and maintenance of a guanxi network. Thus, the hypothesis below is presented:

H3: The effectiveness of the supply chain may be improved by the cultivation of human connections (guanxi).

Cooperation

Ghulam [29] describes cooperative conduct as "similar or complementary coordinated acts done by organizations in an interdependent relationship to accomplish mutual or unique ends with anticipated reciprocity over time." Both parties' readiness to collaborate demonstrates their belief that they can and will work together to further their own and the exchange's interests. Personal trust between company partners is the essential cornerstone of a cooperative inter-business cooperation. Most firms regard deep ties inside and between enterprises as the most reliable source of information. If suppliers and customers do not have a solid working connection, they are less inclined to communicate information and collaborate. Hayes [30] argues that cooperation may help boost export sales. Previous studies on channel distribution have shown a correlation between cooperative efforts and subjective well-being. When channel members collaborate, they may achieve more and come closer to their mutual goals. Thus, the hypothesis below is presented:

H4: Supply chain efficiency will improve as a result of increased cooperation.

Power-Dependence

The nature of dependence in business relationships is intricately tied to the issue of power. "Channel member reliance and power sources in marketing channels are conceptually intertwined" with "dependence" being "a component or aspect of these power sources rather than a separate phenomenon." Willems, Van Puyvelde, Jegers, and Raeymaeckers [31] describe channel management power as the capacity of one member of the supply chain (such as a distributor) to affect the marketing plan of another member of the supply chain functioning at another scale of redistribution (e.g., retailers). The supply chain is a complex system in which the interaction of many different types of power has a wide-ranging impact on the efficiency and effectiveness of individual links as well as the overall network. Given that most authority theories are based on Western concepts and research, it's helpful to extract theories that make more sense in a Chinese context.

As Singh [32] suggests, channel members from various cultural backgrounds may have different ideas about where authority comes from. Despite the widespread interest in power and dependence among academics and professionals, little is known about the impact of these factors on retailers' buying choices and the efficiency of their supply chains. For the purposes of this study, "bases of power" refer to suppliers' ability to influence retailers' purchasing decisions. There are two types of power bases: coercive powers and non-coercive powers (reward, referent, expert and legitimate).

The foregoing empirical evidence demonstrates that the coercive and non-coercive powers of foreign and local suppliers may have both good and negative effects on retail supply chain management practices. This study will look at how much a shop relies on both international and domestic suppliers, as well as if these suppliers have coercive or non-coercive influence over the business. As a result, we hypothesize that:

H5(a): Supplier performance will improve as a result of retailers' dependence on them.

H5(b): The effectiveness of the supply chain will suffer as a result of the suppliers' coercive power to exert pressure.

H5(c): The effectiveness of the supply chain will be enhanced by the suppliers' non-coercive authority.

IV. PURCHASING PROCESS

Profit contribution, consumer demand, product reputation, delivery, and aesthetic qualities are all elements that influence retail buying behavior in the fashion industry. Profitability (in the form of contributing to margin) and brand preferences (in the form of brand reputation and customer demand) have surpassed price as the primary consideration for retail purchases at small Taiwanese sports shops due to limited financial resources. It is critical to consider the store's financial soundness. Memorandum and consignment purchases, rather than advance sales, might be more attractive to smaller enterprises. Stores that can afford to stock up on key overseas brands in advance will do so. Retailers have two fundamental goals, regardless of the terms of the supply contracts they engage into: delighting their consumers and generating a profit.

Szonyi [33] observed that, despite Taiwan's role as a major Asian commercial center, little is known about local corporate purchasing patterns. Despite the fact that there are many merchants across sectors, there is a scarcity of academic research on customer behavior in Taiwan's retail business. The goal of this study is to provide light on the ways in which retail establishments buy sportswear, as well as on the effects that various supply types of contracts and concurrent imports have on supply chain efficiency.

Supply Contracts

Legal contracts define each party's roles and duties in the partnership. According to Andersen, Weisstein, and Song [34], explicit, legal contracts are critical in marketing channels. While formal, thorough contracts are the norm in other countries, "handshake" agreements are rather common and favoured by many enterprises in Taiwan. When making purchases, Taiwanese sports retail firms most often employ futures orders (also known as advance buying) and in-season orders (also known as consignment purchasing and memoranda purchasing). Before making orders, most large foreign suppliers now demand shops to make advance purchases. To ensure product availability during the peak selling season, the shopkeeper must plan his orders six months in advance. Payment is required one month following delivery, and no refunds or exchanges are authorized at the conclusion of the season unless the goods is damaged.

To limit their financial risk, many clothing retailers opt to acquire clothes on consignment. When retailers buy things on consignment, they take possession of the products but maintain legal title. Stores only have to pay for stuff that sells, while unsold inventory may be returned in full at the conclusion of the season. Many shop owners like to conduct business on consignment because it improves their cash flow. This business model has shown to be effective in Japan, and it is also extensively employed in the retail sector in Taiwan's garment industry. Any unsold item acquired under a letter of intent must be returned to the supplier for a full refund. There is less financial risk, and clients may choose from a variety of current styles. Local brand designers and global brands licensed to exclusive Taiwanese manufacturers or distributors often depend on memorandums of understanding-based supply agreements. Purchases made during the season may benefit from same-day or next-day delivery, as well as exchange or return policies for slow-moving items. Payment is needed no later than one month after delivery, just like the products.

We hypothesize that:

H6(a): Supply chain efficiency will improve as a result of preemptive buying.

H6(b): An improvement in supply chain efficiency is one of the benefits of using consignment buying.

H6(c): Using a memorandum of purchase to make purchases will improve supply chain efficiency.

Parallel Imports

Parallel imports are a difficult issue that has plagued many multinational corporations in recent years, primarily in the United States and the European Union, but also in Asia. Pharmaceuticals, cosmetics, automobiles, and even name-brand apparel and footwear have all had to cope with the obstacles and risks provided by parallel imports. According to Repushevskaya [35], yearly worldwide sales of parallel imports exceed billions of dollars, with sales in the American market alone estimated to be \$7-\$10 billion. When actual goods are imported into a nation without the consent of the owner of a trademark, copyright, or brand in a bid to compete with licensed importers, this practice is known as gray trading or parallel imports.

Incentives for engaging in parallel importation are created by a number of factors, including variations in the value of foreign currencies, inflation rates in markets, price differentials, minimal tariffs and administrative obstacles, and excess commodities or unsold inventories. Parallel marketers may acquire items from manufacturers or authorized dealers overseas and then import them into the first country to benefit from low pricing in one country and high prices in another. Tesco, a British supermarket chain, started discounting name-brand products by 30% to 50% off MSRP in 1997. Nike and Adidas clothing, Levi and Calvin Klein pants, as well as other goods were featured.

Demand for more foreign-made brands increased the opportunity for parallel importers to grow their companies. Parallel imports are popular among bargain-hunting customers due of their lower prices. According to Li, Zhang, and Schaefer [36], many Taiwanese consumers favor parallel imports and are well-informed on water commodities (parallels imports). In Taiwan, sporting goods shops, both legal and unlicensed, prefer to congregate on the same street or in close proximity to one another. Prices are sometimes the decisive factor in times of heavy competition. As a result, real retailers are more apprehensive than ever before of selling counterfeit items, which threatens their bottom lines.

When parallel imports enter the supply chain, profit and market share may suffer significantly. It is entirely dependent on whether you are speaking with a manufacturer, distributor, or retailer. Parallel imports, it has been suggested, allow merchants to decrease their purchasing prices and provide consumers with a lower-cost buying option, while trademark owners may increase their total market share and sales. However, Dyah, Hayyanul Haq, and Atsar [37] pointed out that parallel imports harm vital export performance indicators including distributor relations, customer base, and consumer demand. As a result, we shall propose the following hypothesis:

H7: The efficiency of the supply chain as a whole will suffer as a result of parallel imports.

V. PERFORMANCE MEASUREMENT OF SUPPLY CHAINS

The performance of the supply chain is a critical and multidimensional topic, according to management experts. A process's or product's outputs may be assessed and compared to those of other processes or products, as well as predefined targets and historical patterns. It is critical to identify the components that contribute to a successful supply chain. The most important concerns in today's fast-paced, competitive economy are what should be monitored and how judgments should be made based on the findings. Many firms now recognize the importance of performance evaluation and the appropriate metrics to use in order to achieve a successful and efficient supply chain. The fundamental goals of

performance measurement are to improve supply chain effectiveness and efficiency, while also taking into consideration the supply chain's overall objectives and the metrics that will be used to assess them.

Measures of Performance

This research used a classification approach created by Rosa, MacDermid, and Klubowicz [38] to classify the performance measures used to analyze the efficiency of the retail supply chain. In the next section, we'll look through each measure in detail.

Financial Measures

Both sales growth and profit margin are frequent markers of financial health in the future. The average annual growth rate is determined as a percentage over the previous three years. The term "profitability" refers to the normal profits earned by a sportswear retailer. According to Hoenink et al. [39], purchasing behavior is positively associated to a company's profitability.

Non-financial measures

Non-financial measures e.g., **Table 2** support supply chain agility and enhance customer satisfaction.

Table 2. Non-financial measures supporting supply chains

Measure	Description
Flexibility	The capacity to make items or services accessible in response to specific consumer requests is referred to as flexibility. Success in the supply chain is frequently measured by how well it adapts to the unpredictable outside world.
Supply flexibility.	Because of the broad diversity of available sizes, colors, and styles for sporting wear, the fashion sector is risky. Small order amounts and frequent delivery are becoming the standard for merchants in order to fulfill client demand while keeping inventory carrying costs as low as feasible. Overstocking and understocking are two instances of supply chain inefficiencies that may be addressed by using Tsay's Quantity Flexibility (QF) technique.
Product exchange and return.	Consignment and memorandum buying are two options that some businesses choose when acquiring name-brand sports equipment since they involve no upfront investment and enable for simple returns for a full refund or exchange if an item does not sell.
Delivery efficiency.	Consumers now expect rapid service and have less tolerance for extended shipment durations. According to Jiang and Cao [40], the first stage in establishing supply chain excellence and a significant determinant in deciding whether or not consumers are satisfied with a company's services is to deliver as promised. Metrics for customer service are used primarily to evaluate the quality of suppliers' support for merchants. The quality of customer service is one of the most essential criteria in distinguishing a sportswear business from the competitors.
Product availability.	Retail success in the sportswear industry relies heavily on the satisfaction and loyalty of customers, who might be fickle due to the market's cyclical and unpredictable character. If consumer demands are not addressed, firms risk losing money via reduced earnings, lost customers, and stale inventory.
Product quality.	A company's standing and market worth are mirrored in the products it receives through its distributors. Quality, as defined by Ali, Ahmad, and Hussain [41], is positively correlated with both growth and returns on assets, while quality of the supplied product is a metric Dian [42] uses to evaluate the effectiveness of their vendors.

The aforementioned KPIs will be helpful for research into Taiwan's retail supply chain as it relates to the sportswear sector. Following in-depth analyses of the ways in which trust, communication, guanxi, collaboration, and power dependency shape buyer-supplier relationships and the buying process (including supply contracts and parallel imports), we can see how these factors influence supply chain efficiency.

VI. CONCLUSION AND FUTURE RESEARCH

In this paper, a review of literature is used to construct a conceptual framework that outlines the elements that impact the buyer-supplier dynamic and the purchasing process. Financial and non-financial measures that have previously been theoretically created are utilized to assess retail supply chain performance. The findings will help us understand the impacts on, and prediction potential of, performance measures for Taiwanese retail supply chains. As a consequence, it is envisaged that this research will serve two purposes: In contrast to other nations, (1) no research has been done on the variables that affect the performance of supply chains for major retailers in Taiwan; and (2) this research takes into account variables like relationships and the purchasing decision, which are significant in Chinese ethnic investor community and are currently the subject of extensive research by Western academics.

In the future, research will focus on analyzing how numerous factors impact supply chain performance in Taiwan and how they interact with one another. Based on a variety of key performance factors, a comparison will be done between

buyer-supplier relationships as well as the purchasing process with domestic and global suppliers. A standardized questionnaire will be used in face-to-face interviews to learn about merchants' perceptions on supplier relationships and purchasing practices. To conduct this research, a random sample of 250 SMEs will be drawn from among Taiwan Sporting Goods Association members in major cities (the SME Development Statute of 2000 provided by Taiwan's Economic Affairs department specifies that the number of regular employees in the service sector shall not exceed 50 people). One large supplier, ten retailers and three local suppliers will be interviewed informally in person to evaluate the survey's feasibility and question phrasing. The survey will be written in English before being translated into Chinese, and the data obtained in Chinese will be interpreted and translated back into English. In addition, one manager with substantial experience in the sports business and excellent links with national retailers will be invited on board via personal guanxi networks to build a trust-based relations during the interviewing process. People in China are frequently more hesitant when chatting to strangers, therefore this strategy has the potential to lower non-response rates and boost survey reliability.

Data Availability

No data were used to support this study.

Conflicts of Interest

The author(s) declare(s) that they have no conflicts of interest

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