

THE GLOBAL EXPANSION OF TRANSNATIONAL RETAILERS: A CASE STUDY OF
THE LOCALIZATION STRATEGY OF COSTCO IN TAIWAN

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This research focuses on the global expansion of the transnational retail industry. Globalization is a phenomenon experienced by many industries in the present global economy. The global production network (GPN) framework can be used to explain and interpret the phenomenon of transnational firms' adaptation strategies. Due to market saturation in their home countries, retailers began to expand into East Asia in the 1980s. However, cultural differences and legislative limitations created barriers and restrictions for the transnational retailers making this transition. How do firms overcome these challenges? Through a case study of Costco in Taiwan, this research investigates the ways in which retailers adapt their strategies with regard to three concerns: site decisions, product mix selection, and supply network consolidation. The results shows that Costco opted for a strategy of lesser localization in all three domains. This research provides evidence to support this characterization along with examples of Costco's localization strategies via a case study and focuses on the issue of the balance between localization and standardization in the GPN framework.

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CHAPTER 1

INTRODUCTION

This research focuses on the global expansion of the transnational retail industry. Globalization is a trend impacting many industries in the current global economy. In the 1980s, many transnational retailers began to expand into East Asia due to the saturation of markets in North America and Europe, as well as rapid economic growth in developing countries (Alexander & Myers, 1999). Since the beginning of the 21st century, the developing countries of East Asia have experienced a slowdown in development, which has made these national markets more challenging to enter and to succeed within. Undoubtedly, differences in culture create different market environments. Even though transnational retailers adjust their strategies in response to cultural differences, some retailers still fail in their attempted entries into these markets due to legislative limitations and their own inflexible strategies. However, in these challenging markets, some retailers have experienced success. Hence, this study investigates the success and failure of transnational retail entry through a case study approach focusing on an assessment of US-based Costco's expansion into Taiwan. The research attempts to reveal the adaptation strategies which Costco pursued in its store location decision, product portfolio selection, and supplier sourcing network, in order to successfully adapt to meet the challenges of Taiwan's market.

The concept of embeddedness is central to the exploration of transnational adaptation and localization strategies. The term "embeddedness" in the global production network (GPN) model refers to the way a firm responds to and is responded to by the different market environments into which it expands. It can be used to explain and interpret the phenomenon of transnational firms' adaptation strategies. In the contemporary global economy, the increasing scale and scope of GPNs are becoming visible as important topics in economic geography research. Globalization, or sourcing globally, manufacturing internationally, and selling everywhere, is inextricably connected to the rapid growth of the

modern economy (Coe & Lee, 2006; Dawson, 2007; Sakarya et al., 2007; Tokatli, 2008; Wrigley et al., 2005). However, investments in foreign markets are sensitive to institutional and regulatory conditions. Cultural, institutional, and political analysis approaches are essential to refine the globalization framework (Coe & Lee, 2006; Coe et al. 2008; Dawson, 2007; Wrigley et al, 2005). Accordingly, this research explores how Costco's expansion resulted in modifications in their strategies for dealing with cultural, institutional, and political barriers in Taiwan.

Retail localization, which refers to the processes of adaptation to a particular locale, is the latest and most important stage in retail's integration into the globalized consumer economy (Dawson, 2007). However, foreign location selection is complex due to the uncertainty inherent in many factors including cultural distance, emerging market potential, and institutional and political issues, among others. Cultural and institutional distance, local government policy, and the condition of the supply network are big challenges when international retailers decide to go across borders. In foreign markets, a good operation and management strategy adapting to both the supply and demand sides is important. A desirable geographical retail location is important for connecting with both consumers and suppliers, and a good adaptation strategy that is suitable for foreign markets is crucial for retailers' performance in host country markets. In the short run, a profit can be returned quickly, and retailers can operate in the long run only if their localization strategies (strategies for adapting to a particular locale) are suitable for the target marketplace; otherwise, the retailer is at risk of failure. There are several stories of transnational retailers that have successfully performed in foreign markets, and their success is attributable to their correctly adapting strategies practiced in their home markets to the new markets. For example, Tesco from UK and Carrefour from France have successfully expanded into new markets in South Korea and Taiwan, and the key reasons for their success are the strategies they adopted in developing supply networks and their flexible strategies in dealing with

institutional and legislative barriers (Coe & Lee, 2006; Coe et al., 2008; Coe & Hess, 2005; Currah & Wrigley, 2004; Henderson et al., 2002; Hudson, 2008; Wrigley et al., 2005).

Thus, this research focuses on the issue of localization strategies of transnational retailers. In other words, this thesis assesses how a retailer can adapt to cultural and institutional differences as well as supply network dynamics as it embeds itself in a foreign market. It does this by carrying out a case study of Costco's expansion in Taiwan, investigating Costco's adaptation strategies for global expansion in response to the local characteristics in order to gain insight into the issue of retail localization. Taiwan is a key developing country in East Asia that forms an important focus for the expansion of major world retailers, and Costco is a leading discount store in Taiwan, which was the third largest retailer in the country as ranked by gross profits. Moreover, two Taiwan Costco stores are ranked in the top 10 by gross profits of the more than 500 Costco stores worldwide, and Costco's NeiHu store in Taiwan is the second-ranking store in the chain's entire system, just behind the one in Seoul, Korea (Yan, 2010). Obviously, Costco is experiencing success in its Taiwanese venture, and such success makes it worthwhile to conduct research to investigate the details of Costco's strategy in the country.

Thus, this case study takes a quantitative approach together with a qualitative approach to survey Costco's localization strategies. More specifically, the study uses Costco's product line in Taiwan to reveal Costco's localization strategies in three areas: site decision, product selection, and supply network consolidation. The topics investigated using this approach are selected as being advantageous for an assessment and discussion of retailers' globalization strategies.

This investigation develops these themes and arguments through four main sections, as follows. The first section, the literature review, briefly addresses the terminology of the GPN framework and its characteristics and advantages from the point of view of economic geography and progresses from the principal concepts of the GPN to the conceptualization

of retail expansion within the GPN framework and to the key points of retail expansion strategy in the current global economy. The key goal of this section is to identify the GPN framework's weak points in order to discern areas requiring further research linked to retail globalization. The second section reports on the case study itself. It presents information about Taiwan and Costco, and discusses the reasons for the selection of that region and that enterprise; moreover, the research question, sampling, and methodology is illustrated at the end of the case study section. The third section presents analysis and results. It provides the outcomes of the analysis with tables and figures that contain sampling data and results based on inferential statistical analysis. Finally, the last section presents discussion and conclusions. The conclusions and implications of the findings of this research is discussed and linked to research questions and the literature in the areas of retail geography and economic geography. The study concludes with suggestions for future research.

CHAPTER 2

LITERATURE REVIEW

This literature review surveys three key themes. First, the review explores the GPN framework in order to illustrate the phenomenon of globalization and retail TNCs. This section discusses the development of the GPN framework and its advantages as an approach in greater detail and with a wider scope. Second, the literature survey turns to the globalization of the retail industry. The focus here is on the application of the GPN framework by transnational retailers. The third topic covered here is the use of the GPN framework to develop adaptation strategies in global expansion, which include adaptation strategies of site decision, product mix selection, and supply network consolidation. A description of the strategies employed in these three areas gives an idea of the adaptation strategies of the world's leading transnational retailers.

Global Production Network

Global Economy and GPNs

First, global retail expansion, which can be described as retailer internationalization, is associated with change in the global economy (Dawson, 2007). Industrial globalization substantially affects both the operation of firms and the structures of certain industries; moreover, the countries' economic development may also be impacted in the current global economy (Gereffi & Sturgeon, 2005). The global production network (GPN) framework explains the phenomenon of rapid transnational corporation (TNC) growth (Coe et al., 2008; Dawson, 2007; Wrigley et al., 2005). The GPN conceptual framework was first proposed by researchers in Manchester, UK in the mid-1990s (Henderson et al., 2002; Coe et al., 2008), and it attempts to reveal multi-actor and multi-scale characteristics in the systems of global production (Coe et al., 2008). In bringing the concept of globalization into production networks, Henderson et al. (2002) gave the GPN a definition: "the global production network

is a conceptual framework that is capable of grasping the global, regional and local economic and social dimensions of the processes involved in many (though by no means all) forms of economic globalization.” In other words, GPNs can be thought of as the globally organized and interconnected functions and operations of firms and non-firm institutions through which goods and services are produced and distributed to consumers (Coe et al., 2008).

The GPN framework is very powerful, and it extends the main concepts of the global commodity chain (GCC) and global value chain (GVC) frameworks (Henderson, 2002). Although the core of the GCC, GVC, and GPN conceptualizations are similar to each other, in practice the GCC and GVC frameworks are more restricted and less powerful than the GPN framework (Coe et al., 2008; Yang & Coe, 2009). The GPN framework addresses three weaknesses of GCC/GVC. First, the GPN extends the linear chains approach to a network approach (Henderson et al., 2002; Yang & Coe, 2009). Second, the GPN approach attempts to include all relevant involved actors in the networks. Third, the GPN framework explicitly emphasizes multi-scale and multi-place networks instead of the specific simple regions that the GCC/GVC frameworks deal with (Henderson et al., 2002; Coe et al., 2008; Yang & Coe, 2009). This extension illustrates that the GPN framework takes into account not only the relationships within a region but also the relationships between regions as relevant. Therefore, the GPN framework is very valuable for having a wider and broader perspective in dealing with the globalization issue.

Three-Dimensional Linkages

Second, in addition to providing a beneficial perspective on the process of globalization, the GPN framework conceptualizes comprehensive network linkages not only between regions but also within a region. These multi-region linkages are an improvement upon the simple production process in which a product starts from the beginning of the sourcing stage and progresses to the ending of the selling stage. Some researches call this

conceptualization of linkages 3-dimensional linkages (Henderson et al., 2002; Coe et al., 2008). The networks of 3-dimensional linkages—linkages between regions and linkages within regions—are conceptualized in terms of the notions of vertical and horizontal connections. First, vertical networks (linkages between points in different regions) correspond to the concept of the linear process in the GCC/GVC frameworks, which is conventionally involved in supply chain analysis (Coe et al., 2008). This kind of linkage captures the entire product transit process from the stage of sourcing inputs, through the stages of producing outputs and finally through the stages of distribution and final consumption.

Second, the notion of horizontal networks (linkages within a given region for each point) makes it clear that emphasizing only the linear or vertical direction in production network analysis is a problem. In reality, each production stage involves a much wider set of non-linear relationship linkages (Henderson et al., 2002; Coe et al., 2008). These non-linear relationships, which exist within the region where the production stage occurs, connect any relevant factor and any related actor that may be involved in the production networks. In this regard, the horizontal network approach can proceed to conceptualize the connection between firms, certain industries, and certain institutions in each production stage, which is to extend the linear/vertical analysis regarding firms to different layers (Henderson et al., 2002; Coe et al., 2008; Coe & Lee 2006). In the GPN framework, the characteristic of *vertical* and *horizontal* linkages is advantageous in dealing explicitly with circular networks, all involved actors, and multi-scale regions instead of accounting only for simple linear processes and uncomplicated inter-firm relationships (Coe et al., 2008). Combining *vertical* and *horizontal* network dimensions can thus comprehensively and explicitly connect every sector in globalization.

Inter-Firm, Extra-Firm, and Intra-Firm Relationships

Not only does the GPN framework deal with the value-chain between firms, but also a broad range of actors is brought into the GPN conceptualization, which includes firms, international trade organizations, governmental agencies, nongovernmental groups, consumer institutions, employers' associations, and other actors within different societies (Coe et al., 2008; Henderson et al., 2002). These actors substantially impact transnational retailers' performance in the host countries, so the retailers' practices should be adjusted to fit the variety of different local markets. Currah and Wrigley (2004) conceptually categorized TNCs as 3-relationship networks— networks of inter-firm, intra-firm, and extra-firm relationships. These relationships exist not only between businesses but also between businesses and other parts of society. Intra-firm relationship networks tend to focus on competition for capital expenditure among divisions within the firm. In inter-firm relationship networks, in addition to the value-chain analysis between producers and buyers, the array of firms' alliances including local suppliers, distributors, and stakeholders in market places is represented (Currah & Wrigley, 2004; Ernst & Kim, 2002). Extra-firm networks refer to relationships between firms and places, which are means of extracting the maximum benefits from certain communities and societies, with varying cultural realities and differing policies, in which TNCs are embedded (Currah & Wrigley, 2004). With regard to these three relationships, transnational retailers can take into account factors that are related to all of the different relationships instead of only those involving business actors. Then their localization strategies can be adapted to respond to the social and institutional differences in the new markets.

To summarize, the GPN framework, which extends the model from a simple chain concept to an integrated network notion, is valuable for building a wider and broader understanding of the globalization issue. The GPN framework emerges as a solution to the weaknesses of the GCC and GVS frameworks. The GPN framework for analyzing TNCs

comprises two key notions. One is an integrated exhaustive geographical linkage network—a vertical and horizontal network—and the other notion is the comprehensive relationship network—the network of inter-, intra-, and extra-firm relationships. Hence, global production is not just a simple linear flow or circuit but is instead multiple linkages that form a complex network (Currah & Wrigley, 2004; Coe et al, 2008). The GPN framework is beneficial for understanding transnational retailers’ global expansion; indeed, the notions of the GPN framework can be applied to global expansion strategies. The following section argues for the importance of retail globalization from the perspective of the GPN framework.

Internationalization of the Retail Industry

Retail Internationalization in the GPN Framework

In the GPN framework, the analysis of retail globalization activity depends on three interrelated variables. These three principle elements are value, power, and embeddedness (Coe & Hess, 2005; Coe & Lee, 2006). The notion of value in GPNs comprises the concepts of value in creation, value enhanced, and value captured (Henderson et al., 2002). The initial value is created by the conditions of the capital which is owned by a firm, which includes finance capital, labor capital, and technical expertise, and this capital converts power (see below) to value. Then, this value can be enhanced and extended under improved circumstances. The improvement of technology within and without production networks and engagement in relationships between firms or within non-firm networks can create the possibility of value enhancement. Moreover, in the notion of value captured, the value is not guaranteed to be captured and to benefit the firm which creates and enhances the value in the given location; instead, the final value may be captured by other firms or non-firm agencies because of differences in corporate governance, government policy, and network relationships.

Power refers to dominant control over the distribution and operation in production

networks. The conceptualization of power in the GPN framework categorizes power as corporate power, institutional power, and collective power, and these power categories can bring together different but interrelated types of power control: pricing control, inventory control, operation control, and channel structure control (Coe & Lee, 2006; Coe et al., 2008, Henderson et al., 2002).

1. Retailers can use *pricing control* between consumers and suppliers, which refers to discount pricing for consumers and the covering of those discounts through non contracted payments by suppliers.
2. Inventory control can pass the risk for unsold stock to suppliers in retailers' distribution and logistics system.
3. Through *operation control*, retailers can dictate the specifications of production design in the form and appearance of the product and the delivery and sale times they require.
4. Through sourcing strategies, *channel structure control* can determine the length and width of supply networks.

As noted earlier, the value dynamics are strongly impacted by the network relationships in a given location, so power control provides a way for retailers to increasingly dominate the possibility of capturing value in supply networks (Coe & Lee, 2006).

Embeddedness refers to how the transnational corporations respond to and are responded to by different social, political, and economic interests in the countries into whose markets they expand. The term “embeddedness” can be used to explain and interpret the phenomenon of transnational firms’ adaptation and localization strategies. For transnational retailers, becoming dominant means maintaining high power control over inter-, intra-, and extra-firm relationships. Because the three principle elements of the GPN concept—value, power, and embeddedness—are interconnected and interrelated with each other, they can be fundamental for analyzing retail’s internationalization strategies. This research employs the notion of embeddedness extensively to investigate the research question, so it is important to explore the notion of embeddedness in more detail.

Embeddedness in the GPN Framework

An embeddedness strategy is necessary for TNCs in new market places where varying cultural conditions and government policies substantially impact the results of internationalization (Coe & Hess, 2005; Coe & Lee, 2006; Coe et al., 2008 Currah & Wrigley, 2004; Henderson et al., 2002; Hudson, 2008; Wrigley et al., 2005). The relationship between firms and territories is important (Coe et al., 2008; Wrigley et al., 2005). Embeddedness has three forms in the GPN framework: societal embeddedness, territorial embeddedness, and network embeddedness (Coe & Lee, 2006; Tacconelli & Wrigley, 2009; Henderson et al., 2002).

Societal embeddedness is the adaption process which is shaped by the cultural, institutional, and economic environment of a retailer's organization's home market (Coe & Lee, 2006; Tacconelli & Wrigley, 2009). In retail internationalization, this process plays an important role in transferring the strategic management practices from the home to host countries and modifying them appropriately. In *territorial embeddedness*, various institutions impose specific regulations in different regions, so each actor and each sector within the GPN framework should be grounded in its specific location (Coe et al., 2008). For retail globalization, applying a reflexive and hybridized model to adapt for the socio-cultural dynamics in multiple locations is necessary. The adaptation to social, cultural, institutional, and political diversity is required in the specific places in which TNCs are embedded (Coe et al., 2008; Currah and Wrigley, 2004). The third form, *network embeddedness*, must take into account each extra-firm / non-firm network actor (e.g. government, organizations, et al.). Trust between these firms is important to create a maximum collective benefit and value. As a consequence, network embeddedness can be conceived of as power shifting and trust building for successful and stable extra-firm relationships between network agents (Henderson et al., 2002).

Thus, the distribution of power shifts among retailers, suppliers, and other actors is

important to retail firms. Cases of under-performance among transnational retailers have occurred in a variety of national settings. Hence, the social and institutional adaption as well as supply network consolidation in the host or foreign countries always confronts challenges in relation to the source supplier and product logistics. Reformed and reformatted operation strategies are necessary for retailers operating in foreign countries (Coe & Hess, 2005).

Localization Strategy in Global Expansion

A firm's *localization strategy* is the way in which a TNC adapts its activities to accommodate itself to new markets that differ in numerous cultural, institutional, and political dimensions relative to the firm's home market. In other words, the term *localization strategy* refers to the adaptation strategy that is used to modify and embed firms' management practices in the new markets, where cultural, institutional, and political differences create a gap between the current operation and the ideal operation for foreign companies. The new term *glocalization* also communicates an idea related to localization. The concept of *glocalization* is the integration of global business adapting to local strategies; in other words, thinking globally but acting locally reflects the notion of adaptation to, and embeddedness into, new places for the global expansions of TNCs (Swyngedouw, 2004).

The concept of the localization strategy of retail globalization in this paper is derived from the GPN framework and relates to ideas extending from retail national expansion theories to global expansion strategies including entry models, location and allocation strategies, and other marketing theories. Because of the diversity in market conditions between the home and host countries, supply network relationships, sourcing, logistics, and other areas of concern may be magnified as more important agenda items in the retail globalization process. The main objective for TNCs is to maintain bargaining power in the marketplaces by means of power shifting activities in internationalization. In this context, "power shifting activities" refers to the way in which decision-making authority is distributed

between firms and their business partners—suppliers, subsidiaries, and home headquarters.

Degree of strategic localization is a key determinant of market success. Considering the concept of embeddedness in the GPN framework, it becomes clear that localization strategies should take account of all process factors including the market's culture, consumer preferences, supplier systems, and dominant forms of organizational management (Coe & Lee, 2006; Christopherson, 2007; Tacconelli & Wrigley 2009). How to create a successful balance between the benefits of localization in the host country and the concurrent benefits of standardization with the firm's home country is an important issue for retailer internationalization. Coe and Lee (2006) and Tokatli (2008) made two points about the process of strategic localization: one is that strategy should be focused on a dynamic ability so that it can be flexible enough to adjust to change in the competitive and changing environment, and the other is that localization needs to be practiced as a two-way process in which formats and technologies may be diffused throughout the operation of the retail business in various countries including the home country instead of only from the home to the host country. In connection to the research focus, three aspects of localization strategy are explored: localization of the site decision strategy, localization of the product mix selection, and localization of the consolidation of the supplier sourcing.

Localization of the Site Selection Strategy

Site selection strategy, which is always a crucial consideration in retail industry, should be adapted to the new market environment into which the retailer expands overseas (Tacconelli & Wrigley, 2009). The localization activity in site selection strategy can be based on the territorial embeddedness concept in the GPN framework. The site decision is substantially impacted by the real estate market and by government legislation (Liu, 2004; Tacconelli & Wrigley, 2009; Zhou, 1996). These barriers in the new market environment are a challenge to the embedding process for transnational retailers. Because of the interaction

among power, value, and embeddedness, value and power may be lost if the location strategies are not localized and adapted to overcome the challenges related to property acquisition and use in the host market. The challenges of acquiring an appropriate location in the typical East Asian city include finding land of a proper size, obtaining available land, complying with restrictions on land use, and meeting the high property cost. In order for a retailer to keep its business growing and sustain profits, it must make good localization choices. Three main strategies are explored in the following paragraphs.

First, the most crucial issue relates to the optimal entry point of the TNC into the target market. This depends on factors including economic potential and political conditions (Maharajh & Heitmeyer, 2005). Only when the ideal entry point is found can the long term potential of the new host market be realized. Identification of a suitable entry point provides greater opportunities and reduces risk for the entering retailer (Alexander, 1999; Maharajh & Heitmaeyer, 2005; Sakarya et al., 2007; Vida, 2000). Also, the selected region should provide a sufficient supply of land to allow for expansion of the retailer's facilities. Typically, locations in first-tier cities but away from their centers, which can provide better market environments, are often an initial focus of retail TNCs. Following such an entry, their expansion in the host country can then proceed to encompass second- and third- tier cities as well. For example, Wal-Mart's expansion plan for China selected a redeveloped and upgraded region within Shanghai but one that is away from the city center, where the availability land was less limited, and they expanded their business into an area around the Pearl River Delta region, the Yangtze River Delta region, and the region around Beijing. These regions encompass the second-tier cities offering huge populations with increasing income, thus providing potential for further expansion (Tacconelli & Wrigley, 2009).

The second site decision strategy is retail format adaptation to match new market environments (Tacconelli & Wrigley, 2009). Typical Asian cities are characterized by high density population and limited availability of land; in addition, legislation of land use is

different in different regions, which creates a barrier for retailer TNCs in obtaining legal licenses. Hence, retailers should localize their site decision strategy by employing new store formats that will make it easier for them to obtain and develop land. For example, Carrefour's business in China modified its retail format into a smaller discount store format, in which their approximately 300 outlets average 5500 square feet each. Adjusting retail store format into a smaller-size and multi-floor format is an essential location strategy in East Asia expansion (Tacconelli & Wrigley, 2009).

The third site decision strategy is collaboration with close business partners in order to obtain property or land in the tight retail property market (Laulajainen, 1988; Tacconelli & Wrigley, 2009). These partners include both public and private property developers, retail leasing agents, and the retailer's expansion cooperating firm. This is the reason that most transnational retailers take as their expansion entry mode merger and acquisition models. These two entry models can increase the corporation's power by helping it to avoid unnecessary cost and time in dealing with barriers to land acquisition and use (Laulajainen, 1988).

Localization of the Product Mix Selection

The objective of product selection in localization strategy is to adapt the merchandise decision strategy in order to embed it in the host country's culture, institutions, and consumer behavior. Due to substantial differences in society-culture, diet, and consumer behavior between Asia on the one hand and America and Europe on the other (Alexander et al., 1999; Alexander et al., 2000), the product selection should be modified and adapted to the local market (Coe and Lee, 2006; Grewal & Levy, 2007). Several product localization strategies are involved, including product ranging, pricing, store ranging, store service level, advertising, and development of private-label products. This research focuses on product selection, so the literature reviewed here discusses relevant product strategies: product

ranging and development of private-label products.

Product range refers to the degree of variation within the merchandise, which is selected in order to adapt to consumers' preference. Coe and Lee (2006) found that the reason for Tesco's success in South Korea was good localization strategy. Tesco's strategy was based on a more territorially embedded model compared to that of Wal-Mart and Carrefour in South Korea. One of the key factors of their strategies can be characterized in terms of localization of product selection. Generally, Tesco implemented a "Distinct Production" strategy for certain territorial markets, instead of implementing a "World Production" strategy for all of its global markets. In addition to realizing the kind of product preferred locally, the methods of display and customers' typical purchases should also be of concern. For example, Carrefour's localization strategy for product selection in China surveyed wide ethnographic research on fresh food markets. They selected the fresh fish to cater to the typical Chinese diet, which includes an abundance of sea food. However, consumers' preference is quite different between coastal cities and western cities in China, so the product display style had to be adjusted to different regions. Carrefour provided fresh fish for coastal regions but provided frozen fish to western Chinese, who feel more confident with frozen fish than with perishable fresh fish (Tacconelli & Wrigley, 2009).

Another crucial facet of localization of product strategy focuses on the provision of private-label products. Private-label products are widely accepted by European and North American consumers; in contrast, private brands are new to Asian markets (Tacconelli & Wrigley, 2009). Consumers have strong loyalty to manufacturers' brands and domestic brands, and a deep trust for retailers' brand products has yet to be established in East Asia. Moreover, consumers in East Asia are more likely to be attracted by the high quality of a private brand, rather than by a store brand with a comparatively lower price (Lin et al., 2009). After consumers get more confidence in the product quality and become more appreciative of lower prices, loyalty and trust building between retailers and consumers can be rapidly

developed so that retailers can consolidate their consumers. In that case, the profitability of private-label products can rise to about 30 percent gross profit margin higher than that of other manufacturers' brand products. The private label product strategy plays an important role for transnational retailers' expansion into Asian grocery markets.

Localization of the Supplier Network

The supplier network relationship is comparatively difficult to consolidate for transnational retailers in host countries. In the GPN framework, the concept of network embeddedness can be used to build trust among all of the production network players, and this implies that network embeddedness is important for successful, stable, and efficient relationships (Coe et al., 2008; Coe & Lee, 2006; Currah & Wrigley, 2004; Henderson et al., 2002). Christopherson (2007) argued that a successful leading retailer relies on a cost-effective relationship with the supplier. Although excessive intermediaries and local suppliers may impact value-added activity and power shift between retailers and suppliers (Coe and Hess, 2005), establishing a close working relationship with local suppliers is important to maintain power over price, inventory, operations, channel structure, and information (Christopherson, 2007; Coe and Hess, 2005; Coe & Lee 2006; Wrigley et al., 2005). However, in the highly-collaborative economies that are characteristic of East Asia, where foreign retailers encounter the challenge of dealing with local suppliers, the success of retail TNCs depends heavily on inter-firm alliances (Currah & Wrigley, 2004).

The growth of Carrefour in Taiwan is an example of successful international expansion involving localization of a global retailer's supply network. Carrefour, from France, began operating in Taiwan in 1989, and by 2008 they had opened 60 retail outlets in Taiwan. Carrefour accounts for about 50% of the discount store industry in Taiwan. Its success can be attributed to two key factors. First, it has a comprehensive logistic system, including six distribution centers (Chen, 2005; Huang, 2004). With the use of over 7,000 suppliers,

Carrefour created a system in which the logistical process is commissioned to one local delivery company and one French company (Chen, 2005; Coe & Hess, 2006; Hitoshi, 2003; Huang, 2004). The second factor is price control. Carrefour in Taiwan is aggressive in dealing with local companies and suppliers; in fact, they attempt to deal directly with local small and middle size firms and manufacturers so that they can avoid the intermediary costs and gain price control (Coe & Hess, 2006; Hitoshi, 2003). Carrefour's achievement of a high level of power control with local suppliers in its Taiwanese operations can be attributed to its localization strategies, and this positioning has played a crucial role in Carrefour's becoming the leading discount store in Taiwan. Carrefour in Taiwan is the most important example in which localization strategies are implemented based on the embeddedness concept in the GPN framework.

Thus, the localization strategies of firms are critical in impacting a transnational retailer's performance in a host country. Localization in site decision, product selection, and supplier consolidation to adapt to variety of new market environments is indispensable. However, how to appropriately and accurately localize retailers' management strategies without losing the standardization from the retailers' home bases is an important concern.

To summarize this literature review, the GPN framework provides a way of understanding complex networks that interconnect with various regions. The literature reviewed in this section indicates that the conceptualization of TNCs in the GPN framework needs to be refined with regard to the issues of cultural and institutional differences and supply network dynamics (Coe & Lee, 2006; Coe et al., 2008; Coe & Hess, 2005; Currah & Wrigley, 2004; Henderson et al., 2002; Hudson, 2008; Wrigley et al., 2005). In other words, the complexity of inter-firm, intra-firm, and extra-firm supply networks, and barriers related to policies in the host region that differ from those in the firm's home country, are key factors that impact global retail expansion. A change in power relationships between retailers and suppliers is often caused by inappropriate embeddedness strategies

(Henderson et al., 2002; Coe & Hess, 2005; Coe & Lee, 2006; Wrigley et al., 2005; Yang & Coe 2009). In implementing the core strategy from the headquarters, the way a firm adapts and localizes to new markets and gains balance between localization and standardization is very important. Furthermore, in order to maintain a dominant position in the relationship with suppliers, manageability of the supply network and adaptability to social and political issues in the foreign markets are crucial and should be emphasized in future research into expansion strategies. Hence, the following section discusses how transnational retailers adapt localization strategies to maintain power control in host countries via a case study.

CHAPTER 3

CASE STUDY

This chapter outlines the specifics of an investigation of the global expansion strategies of transnational retailers, using a case study approach. The focus here is on the localization strategies of Costco Wholesale Corporation in Taiwan. Taiwan is one of the focal markets in East Asia for transnational retailers, with the country's rapidly-advancing economy providing a major attraction for transnational retailers to invest in Taiwan. US-based Costco makes for an interesting case study because the firm is the only non-European transnational discount store in Taiwan, and Costco is the only warehouse club which operates by charging member fees in Taiwan. The case study of Costco in Taiwan focuses on Taiwan Costco's localization strategies in an effort to refine the GPN framework. In the following section, before the research question is stated, background information about the retail business environment in Taiwan and about the current business operations of Costco is presented in order to explain the selection of Taiwan and Costco for the case study.

Study Area Focus: Taiwan, Republic of China (ROC)

Taiwan, Hong Kong, Singapore, and South Korea make up the four "East Asian Tiger" countries. The Taiwan government has claimed that its dramatic economic successes in the past four decades are an economic development miracle. Taiwan, a 14,000-square-mile mountain island with a population of over 23 million, is located off the coast of mainland China. In order to facilitate understanding of the issue of the distribution of discount retail stores in the following sections, Figure 3.1 shows the major cities in Taiwan, whose tier classification is determined by the administrative division of Taiwan. Two first tier cities—Taipei (the capital) and Kaohsiung—are municipalities directly under the jurisdiction of the central government and are located in the northern and southern parts of Taiwan,

respectively. Five second tier cities (provincial cities) and many third tier cities (county-controlled cities) are distributed across Taiwan. The majority of the economic, industrial, and retail activity takes place in these major cities.

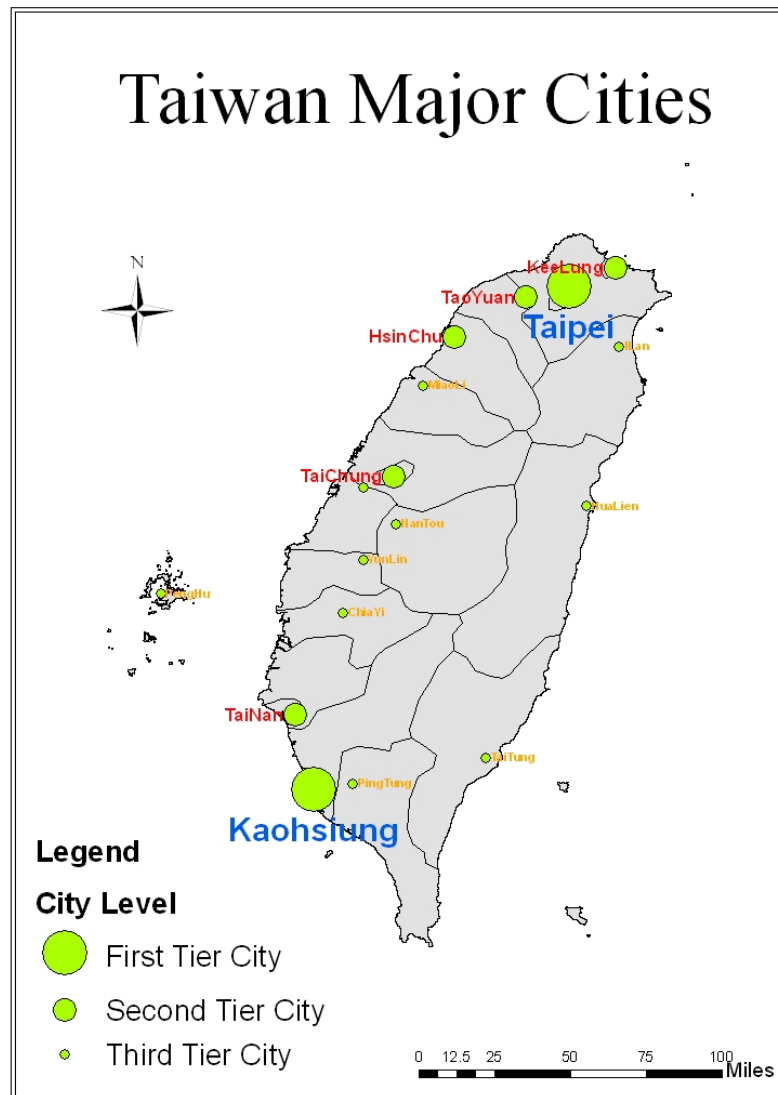


Figure 3.1. Map of Taiwan major cities.

According to the statistical report of the Directorate General of Budget, Accounting, and Statistics (DGBAS) of R.O.C., the annual economic growth rate in 2008 was 4.3%, which was lower than the 2007 figure of 5.72%, and the gross domestic product (GDP) was 16,444 USD, which represented growth of 8.6% compared to 2007. Recently, the economy has still maintained moderate growth, which shows that Taiwan's economy has a certain stability

(Wu, 2009). There are three reasons for which Taiwan is a good place to select as a study area. First, Taiwan's recent surge in economic development makes it a suitable case for investigation of the national dimensions of retail globalization. Second, Taiwan's foundation of economic development provided a supportive environment for rapid growth of retail sales. Third, the retail industry in Taiwan, while seeing recent growth, has approached saturation levels, and thus presents a challenge for ongoing retail development in the country.

Taiwan's Economic Development as an Environment for Globalization

Taiwan's economic emergence began in the 1960s. From 1960 to the early 2000s, an economic revolution contributed to infrastructure improvement, conversion to industry, and an open market policy (Huang, 2004). These factors moved Taiwan toward industrialization during the 1970s. After the 1980s, the decline of the manufacturing industry, the rise of labor costs, and the currency strengthening of the Taiwan dollar caused an abundance of high labor industries to move to Mainland China and Southeast Asia. As a result, the economy in Taiwan shifted gradually from manufacturing to commercial industry, so business, international trade, finance, services, banking, and retail became the center of economic development in Taiwan (Chen, 2005). Consequently, the Taiwanese service sector has grown rapidly since the 1980s, and the retail industry developed vigorously in the late 1980s (Chen 2005; Chen 2004; Chen, 2006; Hitoshi, 2003; Zhou, 1996).

Moreover, the deregulation of the late 1980s started to attract a number of leading foreign retailers to the Taiwanese market. Under Taiwan's policies of open markets and market internationalization, an abundance of foreign investment flowed into the Taiwanese service and retail industries and caused the Taiwanese retail structure to change substantially. In other words, Taiwan's already existing connection with international markets, the high level of development of commercial and financial activities, a well-integrated transportation and distribution system, and the country's high population

density provide a high market potential for the retail industry (Chen, 2005; Hitoshi, 2003; Wu2009, Zhou, 1996).

The Supportive Environment for Rapid Growth of Retail Sales in Taiwan

Taiwan's economic policies and strategies since the 1980s have provided a good foundation and a potential market for the growth of retail sales. Due to a growing GDP, change in consumption behaviors, foreign investment, and encouragement by the government, the size of retail outlets in Taiwan, which was traditionally small, has been changed by foreign leading retail companies (Chen, 2005; Chen, 2005; Hitoshi, 2003; Lin, 2003, Zheng, 2003). The first foreign discount store was Makro, which opened in 1989 and was owned by the Netherlands SHV Corporation in partnership with the Taiwanese FengQun Corporation. (Liu, 2004) The same year, Carrefour worked in cooperation with the Taiwanese Uni-President Corporation to open its first branch in Taiwan. Makro and Carrefour can be called the pioneers of discount retail in Taiwan. Because of the deregulation of foreign investment, an abundance of transnational retailers have strongly impacted the retail development in Taiwan.

Furthermore, other industries which were developed under Taiwan's economic policy also ensure the availability of resources for the retail industry in Taiwan. The Taiwanese government focused on development of the logistics industry as well as collaboration and encouraged research and design (R&D) on the part of private industries so that Taiwanese industries could grow in their technological advancement (Yang & Coe, 2009; Smith & Todaro, 2008). These factors pushed Taiwan's retail industry into the era of information and technology so that modernization could progress in retail and related industries. In addition, the development of extensive infrastructure and effective industrial policies has been cited as an important factor in Taiwan's retail development (Smith & Todaro, 2008). A comprehensive and excellent logistical system is a necessary part of the foundation of the

modern transportation and logistics industries on both land and sea, which are necessary for the operations of the retail industry in Taiwan (Chen, 2005; Chen, 2005; Wong, 2004). Zhou (1996) indicated that, as with other East Asia countries, Taiwanese suppliers and retailers could assign logistic firms to distribute products efficiently, which contributed to a well-integrated logistic system. Briefly, the major reasons for these successful retailers in Taiwan could be concluded to be the economic improvement resulting from the government's policies, the deregulation of foreign investment, and the maturation of the logistics and distribution system.

Saturation and Challenges for Retail in Taiwan

The retail industry in Taiwan has been growing closer to saturation levels during the past ten years. The term 'saturation level' here refers to the number of discount retail stores which represents the maximum capacity in a given market. Once there is no longer high demand in a given market for more retail stores, the growth of the total number of and retail revenues will start to decline. This saturation of the market may impact retailer's performances in ways such as a slowing of store expansions, shrinking of business growth, quitting of companies from markets, sharing of a market among many retailers, and even the de facto disallowing by the market of the entry of new retail brands. Since the 2000s, the saturation of the market has impacted the discount retail business in Taiwan.

This saturation causes challenges for retailers wishing to grow their businesses in Taiwan (Chen, 2005; Zheng, 2003). The growth rate of retail in the Taiwanese market has been slowing down, and the total number of retail stores has not changed much during this decade. Figure 3.2 and Figure 3.3 show the tendency toward saturation in the discount store industry in Taiwan after 2000. The discount store industry in Taiwan grew rapidly during its first ten years. From 1989 to 2000, there were a total of 108 stores, and 56% were foreign-owned. The gross sales of the discount store industry in 2001 amounted to

approximately 4.8 billion US dollars, which was about 25.7% of the total gross retail sales (Chen, 2005).

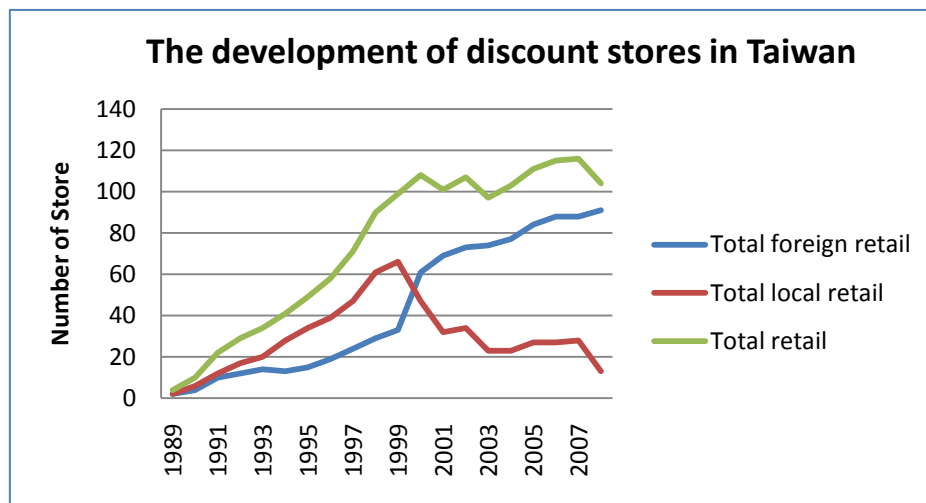


Figure 3.2. Number of discount stores by foreign and domestic retailers in Taiwan during 1989-2007.

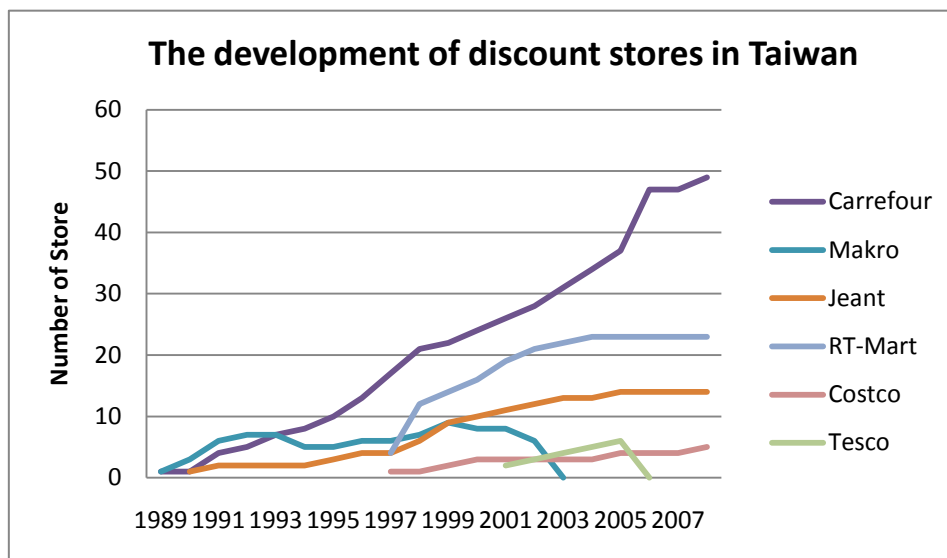


Figure 3.3. Number of discount stores by top retailers in Taiwan during 1989-2007.

However, by 2000 the discount store industry had become saturated (Chen, 2005; Zheng, 2003); Figure 3.3 shows that 1999 marked the eclipsing of Taiwan’s domestic retail by foreign retailers – this represents an important milestone for retail in Taiwan. Fifteen local retailers exited from markets or merged with other companies during the 2000 to 2008 time

frame. In addition, in 2008 foreign retailers accounted for 76% of the total number of discount stores in the Taiwanese market, up from 56% in 2000. Figure 3.4 illustrates the distribution of the discount retail stores in Taiwan; the majority of the city metros are occupied by foreign retailers, and only very few local retailers share markets in the middle and southern parts of Taiwan. This indicates that local retailers could not compete with transnational retailers because of the abundant capital, effective management, and comprehensive supply chain systems possessed by these global competitors (Chen 2005; Xu, 1996; Zhou, 1996).

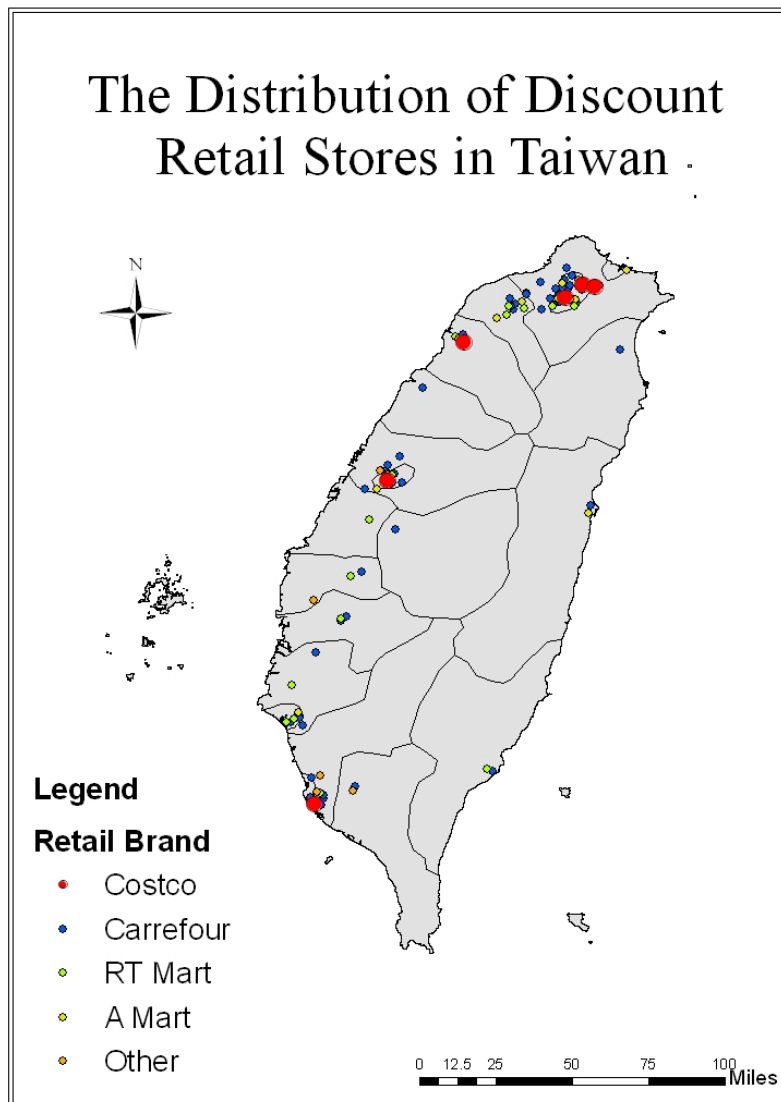


Figure 3.4. The distribution of discount retail stores in Taiwan.

As is also true in other East Asian countries, cities in Taiwan are facing limitations related to limited land availability. Thus, in the Taiwanese market, the biggest challenge for foreign retailers expanding into Taiwan (similarly to other East Asian nations) is their ability to obtain land and the restrictions that exist on land use (Chen, 2005; Chen, 2005; Lin, 2003; Wong, 2004, Zhou, 1996.). Real estate is extremely costly in Taiwan, and there is a lack of large-size vacant land in an appropriate location for a retail store (Chen, 2005; Lin, 2003; Coe and Lee, 2006). In addition, Taiwanese land use legislation is ambiguous, and this ambiguity certainly impacts the site selection of retailers (Liu, 2004; Zhou, 1996). Indeed, injunctions to cease operation can be given to retailers whose store location strategies are in conflict with legislation, and this has caused the growth rate of retailers to slow in Taiwan (Liu, 2004; Zhou, 1996).

Last but not least, the impact of the relationship between foreign retailers and local suppliers is another important issue. The majority of local suppliers in Taiwan are small- and medium-scale manufacturers, agents, and vendors, and this is a challenge for a new foreign retailer beginning operations in Taiwan. For instance, Hitoshi (2003), doing research on Carrefour in Taiwan, found that most suppliers and manufacturers in Taiwan are too weak to negotiate with large-scale foreign retailing. Carrefour had friction with local suppliers during their first ten years even though Carrefour in Taiwan is a leading discount store retailer. They spent ten years creating their supplier network with local suppliers, encountering particular difficulty with food manufacturers. Hence, establishing good network relationships with local suppliers is an important and indispensable step for new retailers.

Thus, since the late 1980s, the retail industry in the Taiwanese market has grown rapidly due to domestic economic development and abundant foreign retailer investment. Around 2000, the discount retail market became saturated, and the major companies were three French retailers (Carrefour, RT-Mart, and Jeant) and one US retailer (Costco). Although the market has become saturated, the Taiwanese market still has potential for retail growth,

and its advantages for the retail industry are governmental promotion, high population density with high GDP, and a comprehensive distribution system. However, limitations created by legislation, issues of real estate land use, and problems of friction with suppliers are key challenges for foreign retailers in Taiwan.

Business Focus: The Emergence of Costco in Taiwan

Given the background information provided above, it is apparent that a case study of the expansion of a global retailer into Taiwan can provide insight into the dynamics of such an international expansion. This research uses Costco's Taiwanese expansion as its primary focus. However, before discussing the importance of the emergence of Costco in Taiwan, it is important to gain an understanding of the general profile of Costco first. Costco Wholesale Corporation originated in 1983 in Seattle, WA, and its operation strategy, at the very beginning, was to focus on the small business market, but the company found that selling higher-level merchandise to selected audiences of non-business members could yield higher profits and lead to greater buying clout for itself; as a result, they established the first Costco warehouse club in Seattle, WA in 1983. In 1993, Costco merged with Price Club, another membership warehouse pioneer, to form Price/Costco. In August 1999 the company changed its name to today's Costco Companies, Inc. According to Costco's 2008 annual report, their 2008 net sales were 70.9 billion US dollars, which was a 13% increase over 2007. Moreover, according to the *Annual Report 2008 of Costco*, "Costco is the fifth largest retailer in the United States, the eighth largest retailer in the world, and the twenty-ninth largest company in the Fortune 500" (p. 2). Currently, Costco has 20.1 billion non-business members and 5.9 billion business members and operates 550 warehouses in 8 countries, with 403 in the US and Puerto Rico, 76 in Canada, 31 in Mexico, 21 in the UK, 6 in Korea, 6 in Taiwan, and 8 in Japan. The expansion of Costco is continuing, with the firm's long term goal being to nearly double its current size in the next ten years. Two reasons for the selection of Costco

as the subject of this case study are its unique characteristics, which contributed to its survival as a retailer in Taiwan, and its use of different localization strategies as compared to those of other retailers in Taiwan.

Costco's Unique Characteristics Contributing to Its Survival in Taiwan

Costco is unique among discount retail stores in Taiwan. Costco entered the Taiwanese market in 1997 through a joint venture with DaTong President Group, which is the leading department store company in southern Taiwan. The first store was opened in Kaohsiung, the biggest city in southern Taiwan and second biggest city in all of Taiwan. Prior to the summer of 2009, there were 6 locations and about 600,000 members in Taiwan. Although there were only 6 stores, the annual net sales per store were the highest in the Taiwanese discount store industry (Lin, 2003). Although Costco entered Taiwan after its European competitors, as of 2010 Costco is the only discount store retailer that operates a warehouse club in the Taiwanese market. Costco's unique positioning in Taiwan was caused by the only other warehouse club retailer, Makro, exiting the Taiwanese market in 2003.

Costco's Different Localization Strategy

Costco's strategies in Taiwan include providing low prices to customers and emphasizing the leading domestic brands and select international products to achieve higher sales and a more effective inventory (Lin, 2003). Moreover, their target markets are both businesses and individual consumers. By collecting member fees, Costco can minimize prices and then shift profits back to its customers. Costco's product strategy in Taiwan is differentiation and providing specialty products so that they can maintain customer loyalty. Thirty-five percent of the products Costco carries are imported, which is comparatively higher than the percentage of imports carried by other retailers in Taiwan (Lin, 2003). To control costs, Costco has chosen not to open a distribution center in Taiwan. Their

philosophy is that “the stores are our warehouse,” and that connecting to distribution centers surrounding Taiwan (such as the one in Japan) or directly to distribution centers in their home country (the US) is the most efficient use of their logistic networks (Chen, 2005; Lin, 2003). Costco in Taiwan has a high percentage of foreign products; hence, reducing costs of international logistic distribution is an important issue. For this reason, most imported products are stocked by an international stock system and transited to distribution centers in the US first, and then these imported products are distributed from the US to stores located in Taiwan. In contrast, local products are shipped directly from the local supplier to Costco’s store locations (Huang, 2004; Chen, 2005). As the literature review noted, Carrefour, a French retailer in Taiwan, is a success story of localization in global expansion. Makro’s appearance moved Taiwanese retail format into a new era, and Makro has been called the pioneer of the discount store concept in Taiwan. In the 1990s, two retailers, Marko and Carrefour, strongly impacted the discount store and hypermarket industries, which caused the market to grow rapidly with a 6-fold growth rate from 1989 to 2000.

In conclusion, Costco’s entry into Taiwan in 1997 was late in comparison with its primary international competition; however, the disadvantage of a late start was balanced by the advantage of its current position as the only warehouse club retailer in the Taiwanese market. Although Costco has only six stores in Taiwan as of 2010, its average annual gross sale per store is greater than that of any other discount store retailer in Taiwan (Lu 2009). Uniqueness in the industry, differentiation and specialization in the product selection, and an efficient distribution system are advantages that Costco uses to compete with other leading discount store retailers.

Research Questions

The purpose of this research, focusing on a case study of Costco’s expansion and operations in Taiwan, is to investigate the *localization* strategies of transnational retailers

based on the concept of embeddedness of the GPN framework. This research answers three questions; first, what is Costco's localization strategy related to the firm's *store location decisions* in Taiwan? Second, what is the localization strategy related to Costco's *product mix strategy* in Taiwan? Third, what is the localization strategy related to Costco's *supplier sourcing network* in Taiwan? The following discussion develops these questions in more detail.

First, the research assesses Costco's localization strategy of *store location decisions* in Taiwan. More specifically, what site decision adaptations did Costco make in order to overcome institutional and legislative barriers? Based on the concept of embeddedness in the GPN framework, this case study investigates the extra-firm relationships of Costco in Taiwan. Research related to this question explored Costco's management strategy and operation policy to adapt to location limitations in Taiwan. Consequently, the first research question explores Costco's localization strategies in light of location limitation issues. Comparing Costco with other retailers in Taiwan, where did Costco decide to expand from its first entry point region in Taiwan, and why? What is the appropriate size format for Costco in Taiwan? And what different site decision strategies did Costco adopt? This is not just to inquire where they decided to locate individual stores; rather, the question is how they adapted their site decision-making strategy to accommodate the specific institutional and legal limitations in Taiwan.

Second, what is the localization strategy of Costco's *product selection* in Taiwan? Specifically, the product selection or the product component refers to the percentage of domestic versus foreign products which are selected by Costco for sale in the Taiwan market. In this connection, an attempt is made to answer two sub-questions: What are the components of Costco's product line with regard to foreign versus domestic products (in Taiwan), and how does Costco maintain a balance between standardization and localization? Questions focused on Costco's adaptation strategies based on the concept of territorial

embeddedness in the GPN framework. In choosing a localization strategy for product selection, a conflict between standardization and localization arises. Obtaining a balance between standardization and localization is a challenging but important task (Aoyama, 2007; Christopherson, 2007; Coe & Lee, 2006). Aiming at a higher level of standardization may cause business failure if retailers' strategies do not adapt to local preferences. Carrefour and Wal-Mart in Japan are good examples; these two companies have so far failed to achieve their initial high expectations, and generally, the reason for failure is considered to be the conflict between the organization of the TNCs and the institutions of different market places, which may be referred to as the contradiction between localization and standardization (Aoyama, 2007).

In contrast to Carrefour and Wal-Mart in Japan, Tesco in South Korea is a successful example of the localization strategy of embeddedness, and one of its reasons for success is that Tesco implemented a more territorially embedded model so that it could be more effective in localizing its management (Coe and Lee, 2006). A high level of standardization strategy cannot easily succeed in foreign host markets which have a strong cultural deviation from the retailers' home market. Coe and Lee's work (2006) indicated that Tesco effectively localized distinct products for specific markets, and they adapted the product design to fit with customers' tastes. However, Costco in Taiwan relies heavily on imported products (Chen, 2004 & Huang, 2003), which means that the product selection tends to be less localized than in the Tesco example in South Korea and the Carrefour example in Taiwan. By this assumption, Costco in Taiwan chose a different product strategy, which may prove more successful. Thus, the second question, that of localization of product selection in Taiwan, is to determine what Costco's selection of products is in terms of foreign versus domestic products by separating products into categories and to discover how Costco maintains a balance between standardization and localization, employing the concept of territorial embeddedness in the GPN framework.

The third question focuses on Costco's localization strategy regarding its *supplier network* in Taiwan. In other words, what is the Costco's sourcing strategy between domestic and foreign suppliers in Taiwan? In contrast to the product-centered concern of the second question, this third question focuses on the characteristics of different supplier types: the kinds of firms that are actually providing the products sold by Costco in Taiwan. This product-supplier distinction is important because of the issues this framework allows the study to examine. For example, foreign products (such as a Japanese camera or a refrigerator made in South Korea) could be sourced from either a foreign or a domestic supplier. Thus, analysis of suppliers as well as products allows the unique geographies of both to be covered in this research.

Following from this background, two related questions need to be discussed: what proportion of foreign and local suppliers did Costco use in Taiwan, and how did Costco deal with the supplier relationships to maintain bargaining power in Taiwan? These questions also make use of the concept of network embeddedness in the GPN framework to investigate the supplier network in a foreign market. Carrefour in Taiwan is an example of successful network-embedded sourcing in foreign markets. Hitoshi's research (2003) showed that Carrefour in Taiwan was aggressive in dealing with local companies and suppliers. Carrefour obtained 90% of its products and services from local suppliers and attempted to deal directly with local small-size and medium-size firms and manufacturers in order to avoid intermediary costs to gain price control (Coe & Hess, 2006; Coe & Lee, 2006; Hitoshi, 2003).

Another case of localization of sourcing is that of Tesco in South Korea, which used over 1000 local suppliers, and whose supply chain network management was modified through a process of localization. The majority of products were supplied directly by local producers and manufacturers, and most of the suppliers were local manufacturers. In fact, in the list of the top 50 suppliers of Tesco in South Korea, there are only 6 foreign suppliers (Coe & Lee 2006). By contrast, Costco in Taiwan tends to rely on more foreign products than

did Tesco in South Korea and Carrefour in Taiwan. This indicates that Costco's sourcing in supply networks does not necessarily tend to rely on local suppliers, and its decision to rely on suppliers outside of Taiwan was nevertheless part of a successful enterprise in Taiwan. Therefore, this research assesses how Costco dealt with both their local and foreign suppliers in Taiwan. What proportion of foreign and local suppliers does Costco use in sourcing for its stores in Taiwan, and what balance does Costco maintain between supply network localization and standardization in Taiwan?

To summarize, this case study of Costco in Taiwan investigates the localization strategies of transnational retailers based on the concept of embeddedness of the GPN framework. To do this, this research explores three major questions: localization strategies related to store location selection, product selection, and supplier network. The next section addresses the acquisition of data for research analysis and the methodology of the research.

Data

This research carried out here analyzes data from two databases. One is a listing of information about all discount stores in Taiwan from the *Annual Report of Large-scale Retailers in Taiwan 2009* published by *Distribution News*. This report is an authoritative publication that is widely used in market analysis in Taiwan. For a comparison of the Costco stores between the US and Taiwan, this database was used as the source of information including the number of outlets owned by each retailer brand, the location of each store, the opening date of each store, and the land area occupied by each store in Taiwan. In the Taiwan region, this study used a sample of 99 stores, which were extracted from the total stores listed in the Annual Report. The information about stores in Taiwan required for the analysis is provided by this database only for those 99 stores. The land area information related to Costco stores in the US region was obtained through the use of Google Earth. The occupied land size was calculated by measurement of small scale of aerial photos provided

in Google Earth. The sampling sampled the information of all of the Costco stores in Texas, whose number is 16. In addition to retail store information, the GIS data files were also used for mapping the location of stores in Taiwan. The information in the GIS database, including stores' locations, major cities, and Taiwan county boundaries, is provided by the Department of Land Management in Feng Chia University. Also, photos of sample stores were taken on a field trip to Taiwan from July 2009 to August 2010. The contents of the photos include views of external and internal design as well as other information related to the research. These photos are used to supplement the analysis data.

Another database comprises data obtained from field sampling. Data on the products which are available to customers were collected from one Costco store in the US (East Plano, Texas) and one Costco store in Taiwan (ZhongHe). The study selected Texas as the US sample site in order to facilitate direct comparison with Taiwan, as Texas has a climate similar to Taiwan (annual average temperature 70° F, with both having hot summers and temperate winters). Similarity in climate helps to ensure as fair a comparison as possible regarding environmental influences on consumer demands and behaviors, cultural differences aside. The field sampling directly collected data in stores with the permission of the store management. The sampling included the product's name, the product's brand name, the product's manufacturer, the product's importers, and its production location (as information was available on the packaging of each product). So that specialty or seasonal products would be avoided during sampling, the time of field sampling avoided the holiday season in both countries (e.g., Thanksgiving and Christmas in the US and Chinese New Year in Taiwan). Again, the intention of this holiday avoidance was to capture product samples that are as comparable as possible in both countries.

Methodology

This study applied a quantitative approach to find the answers to the three research

questions. Overall, the analysis made an examination of the information in the databases regarding stores' outlet format, product line, and sourcing information; in this way, a comparison of Costco stores between the two markets was also made through inferential statistic methods. These approaches allow an inference to be made regarding how Costco implemented their strategies to achieve a balance between localization and standardization in Taiwan. The following discussion provides more details for each research theme.

The methodology of the first question (localization strategy of the stores' site decision) was to take a qualitative approach through empirical and GIS analysis to investigate Costco's legislation adaptation strategies and site selection strategies in Taiwan. The first step was to explore Costco's operational philosophy and to conduct interviews with the managers of Costco. This allowed for an assessment of its operational behavior so that the research could examine Costco's site decision strategies. The second step was to compare Costco's average land size within Taiwan and between Taiwan and the US. Because of the small sample size (6 Costco stores in Taiwan), the analysis employed a non-parametric methodology; the *Independent 2 sample Mann-Whitney U Test* was applied to assess if there is a significant difference in the stores' formats and in the land size occupied. The null hypothesis is that the average land size is not significantly different, and the alternative hypothesis is that the average land size is significantly different. If a significant difference in land size is not found, it means that an adjustment in the size of Costco's stores was not necessary in their expansion into Taiwan. The last step, which relied on data in the database of store information from *Annual Report of Large-scale Retailers in Taiwan 2009*, was to map store locations in Taiwan to illustrate the spatial distribution of Costco and competitor store locations in Taiwan. Consideration of these locations assists in preparing a profile of Costco's location strategy in Taiwan.

Relating to the second and third research questions on product selection and supplier network, the study used a quantitative approach, and a *Chi-Square Test of*

Independence was applied to the data which was gathered to answer them (the particular application of these methods used to address the third question will be discussed in more detail below). The Chi-Square Test of Independence is widely applied in statistical analysis in independent categorical variables which are measured on a nominal scale and are represented as values that differ only qualitatively from other categorical values (Stern, 2008). In the example shown in Table 3.1, the data are represented in the number of product types classified according to their production place (domestic, foreign) and the market location (Taiwan, US), and the result can be represented in a contingency table such as that shown in Table 3.1.

Table 3.1

Contingency Table Depicting the Number of Product Types Classified by Two Market Locations

	Domestic products	Foreign products
US.	128	66
Taiwan	33	11

The null hypothesis is that product selection is not associated with market place, which would indicate that Costco’s decision of product line is not affected by different markets. The alternative hypothesis is the contrary. Hence, if the P-value (coming from the X^2 value) is not significant, then the null hypothesis should be rejected, from which it would be concluded that Costco’s decisions regarding its product line take into consideration the particular conditions of Taiwanese markets. This conclusion would indicate that Costco’s strategies of product selection reflect less standardization and instead are adapted to different countries.

In order to assess the localization of product selection, this research investigated the

selection of products with regard to foreign versus domestic products by separating products into categories. The goal of this category analysis was to examine how Costco maintains a balance between standardization and localization with reference to the concept of territorial embeddedness from the GPN framework. The approach for this question was to compare the percentage of domestic and foreign products among the total products and within each product category based on Costco’s classification. The component percentages were also compared with the selection of products found in US Costco stores. A Chi-Square test of independence was performed to assess whether the product selection associates with different markets.

H_0 : the Costco’s product component is associated with different markets (Taiwan and the US).

H_a : the Costco’s product component is not associated with different markets (Taiwan and the US).

The analysis classifies product types into 4 categories: domestic brand domestic produced, domestic brand foreign-sourced, foreign brand domestic produced, and foreign brand foreign-sourced and Costco brand. These categories are shown in Table 3.2.

Table 3.2

Matrix of 5 Product Type Categories for Analyzing Product Selection in Different Markets

	Domestic brand	Foreign brand
Domestic produced	Domestic brand domestic produced	Foreign brand domestic produced
Foreign sourced	Domestic brand imported	Foreign brand imported
Other	Costco brand	

If a significant difference between the two markets is found, it means that the null hypothesis, which is that the product selection is similar in different markets, can be rejected. This would imply that Costco’s strategy of a low level of localization of the product selection is in fact a workable strategy (given Costco’s record of success). The researcher performed a chi-square test of independence in order to assess whether the product selection associates

by different types of categories (e.g. frozen food, dry food, electronics, etc., shown in Table 3.3). Through this quantitative approach, this research examines the differentiation of product mix selection between merchandise categories and between home and foreign markets, and this helps to assess Costco’s localization strategy of product selection in Taiwan.

Table 3.3

Category List of Product Mix Classified in the Chi-Square Test of Independence

Product Classification	
Categories	Sub-Categories
Appliances	Big Appl., Small Appl., Kitchen Appl., Other Appl.
Computer & Electronics	Computer, Electronics
Dry Food & Sundries	Canned Foods, Cereal, Coffee, Drink & Juice, Oil, Pet Supplies, Rice & Noodles, Sauce & Seasoning, Sundry
Fresh Food	Bread, Fruit & Vegetable, Meat, Sea Food
Frozen & Chilled Food	Cheese, Chilled Food, Dairy, Dessert, Meat & Sausage, Seafood, Vegetables
Hardware & Furniture	Automotive Supplies, Furniture, Hardware, Illumination, Office Supplies, Other
Health & Beauty Aids	Bath Supplies, Beauty Supplies, Health, Vitamins
Housewares	Bed Supplies, Cleaners, Cookware, Kitchen Supplies, Paper Supplies
Outdoor & Sporting	Garden , Outdoor, Sporting, Toys
Snacks and Candy	Candy, Chocolate, Snacks

The methodology used to answer the third question was a statistical approach utilizing sourcing information to investigate the localization strategy of the supplier network. This question is answered based on the data sampling and the Chi-Square Test mentioned in the previous paragraph. The research emphasizes Costco’s sourcing structure in Taiwan, which refers to the component proportion between domestic and foreign suppliers. The study categorizes suppliers into 5 classes: 1. Domestic firms, 2. Domestic subsidiaries of foreign firms, 3. Foreign subsidiaries of domestic firms, 4. Foreign firms, and 5. Costco and their cooperating firms. The component proportion of supplier types was examined within each category of merchandise. The Chi-square test was performed to determine whether sourcing

in supplier networks associates with different markets, that is, whether there exists a significant association between the proportion of foreign versus domestic suppliers and the location of the market. Based on the 5 types of suppliers, the null and alternative hypotheses are:

Ho: Costco's decisions related to supplier sourcing are associated with different markets (Taiwan and the US).

Ha: Costco's decisions related to supplier sourcing are not associated with different markets (Taiwan and the US).

If a significant difference between the two markets is found, it means that the null hypothesis, which is that the sourcing in supplier network is similar in different markets, can be rejected. This would mean that Costco's strategy includes a lower degree of localization of supplier networks. Through quantitatively examining the component percentage of the 5 types of suppliers among the different categories, this research makes it possible to assess Costco's localization strategies with regard to its supply networks in Taiwan.

CHAPTER 4

RESULT

The analysis of data related to the three research topics reveals several interesting results as well as some unexpected findings. The results of the statistical analysis reveal Costco's practices of adaptation to Taiwanese markets, and the answers to the three research questions provide concrete information relevant to the debate regarding localization strategies. The following sections present more specific details for each of the three research questions, relating to store location, product mix, and supplier networks.

Findings: Store Localization Strategies

The findings and results related to Question 1 is illustrated in two parts. The first part presents the information about the physical format of Costco Taiwan, which includes the building format, the floor design, and the parking lot design. The second part focuses on the data concerning occupied floor area size and the size comparison between Costco US stores and Costco Taiwan stores as well as between Costco Taiwan stores and those of other discount store retailers in Taiwan.

Presently, there are six Costco stores in Taiwan, and the average floor area size of a Costco store in Taiwan is about 135,500 square feet. Due to the limitation of available vacant spaces and the high land costs, the structures of the Costco stores in Taiwan are designed as multiple-storey type combining market areas, parking lots areas, and other service areas. This format is not like the typical retailer store format in the US, where a typical Costco store is in a single-storey big box format with a large parking lot area adjoining. Table 4.1 illustrates the building layouts of six Costco stores in Taiwan. Buildings are designed with multiple functions integrated in one building; in fact, selling, parking, services, and office areas are located on different levels, from the 3rd level of the basement to the 4th floor depending on their design and on their locations. Costco's TaiZhong Store is a good example.

Table 4.1, together with Figure 4.1 and Figure 4.2, shows the layout of this store, a multi-storey building with 2 stories above ground and 2 stories underground, and there is no separate, outside car parking area. By comparison, Figure 4.3 and Figure 4.4, of Costco's ZhongHe Store, show that outside parking areas are designed for motorcycles only and that there is no separate, outside car parking area: the parking area is designed underground. These design features are typical in Costco's stores in Taiwan.

Table 4.1

Costco Stores' Format Designs in Taiwan: Use of Space on Basement and Above-Ground Floor Levels

Store Location	3rd Basement Level	2nd Basement Level	1st Basement Level	Ground Floor	2nd Floor	3rd Floor	4th Floor
NeiHu	P	P	P	M	M		
XiZhi		P	P	M	M		
ZhongHe		P	P	M			
TaiZhong		P	P	S	M		
KaoXiong		P	M	M	O	P	P
XinZhu	P	P	P, S	M			

(where P: parking lot, M: market area, S: service area, O: office)



Figure 4.1. The external view of Costco's Taizhong store from sidewalk. (Taizhong, TW, July 2010)



Figure 4.2. The sign of the floor plan of Costco's Taichung store (Taichung, TW, July 2010.)



Figure 4.3. Front view of Costco's ZhongHe store from sidewalk. (ZhongHe, TW, August 2010.)



Figure 4.4. The internal view of the underground parking area in Costco's ZhongHe store. (ZhongHe, TW, August 2010.)

Table 4.2 provides information about the occupied floor areas of US Costco stores, Taiwan Costco stores, those of other foreign retailers, and those of other local Taiwanese retailers. It shows that the average occupied floor area size of a Costco store is approximately 135,000 sq. feet in Taiwan and 140,000 sq. feet in the US. The table indicates that the store floor areas in the two regions appear to be similar; however, it is important to note that the variation in the US store areas (with a range of 114,000 square feet) is greater than the variation in the stores in Taiwan (with a range of 36,000 square feet). Indeed, the standard deviation in the US sample is 22,224 sq. feet, which is double that of the sample from Taiwan. However, the figure boxplot analysis, shown in Figure 4.5, reveals that between the US and Taiwan the size distributions of the 50% of the stores which are between the 25 and 75 percentiles are quite similar and centralized to their means. The huge range in US stores is due to outliers; in other words, some outliers' unusually huge size and extremely small size cause greater variations in the US than in Taiwan. Otherwise, if we disregard these outliers, the distributions of the two groups of stores are quite similar.

Table 4.2

Descriptive Statistics of Sales Floor Area of Costco Stores in US and Taiwan and Other Retailers in Taiwan

	Number of stores	Range (ft ²)	Minimum (ft ²)	Maximum (ft ²)	Mean (ft ²)	Standard Deviation (ft ²)
US Costco	16	114,000	70,000	184,000	139,938	22,224
Taiwan Costco	6	36,000	118,000	154,000	135,500	12,613
Carrefour	43	252,000	33,000	285,000	120,674	64,549
RT Mart	24	669,000	43,000	712,000	188,917	156,402
Amart Jant	14	303,000	64,000	367,000	177,786	85,418
Other Taiwanese retailers	12	416,000	46,000	462,000	143,000	113,776

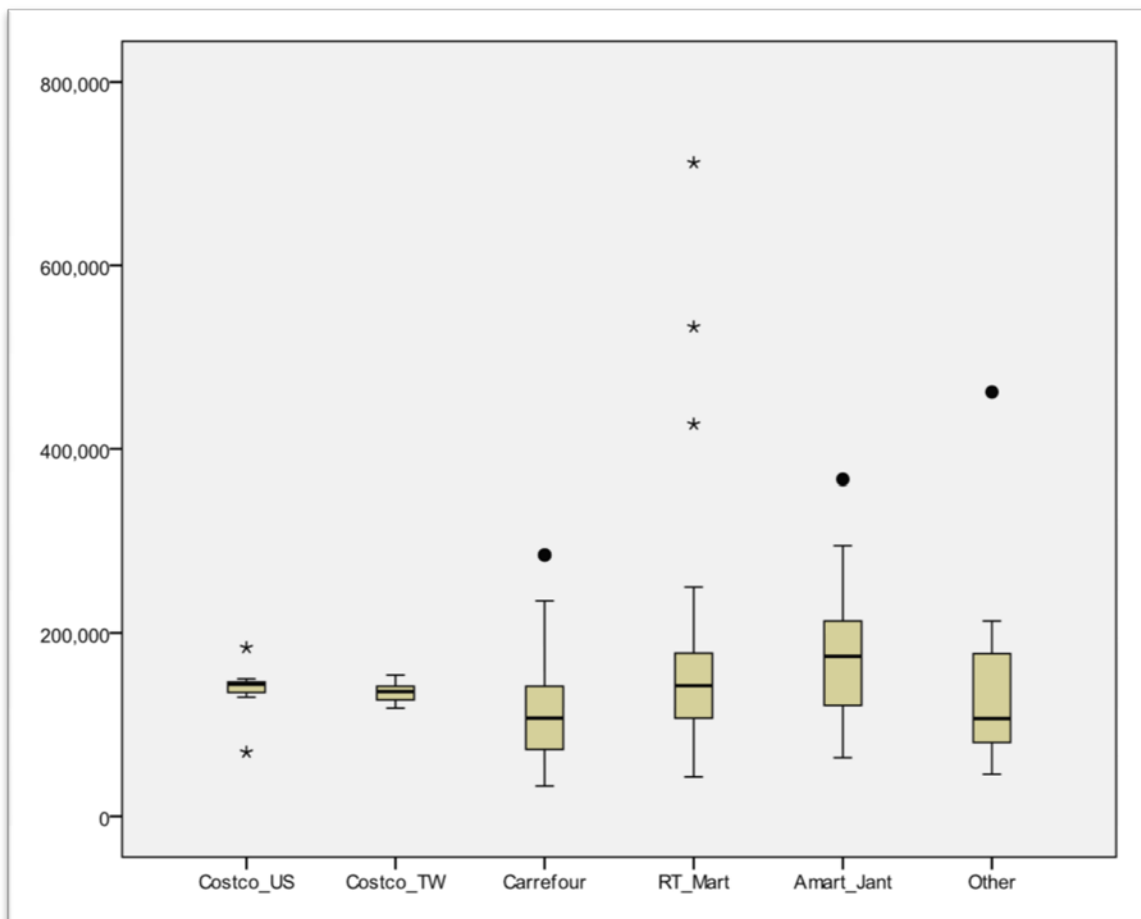


Figure 4.5. The boxplot of occupied floor area of Costco US, Costco Taiwan, and other retailers in Taiwan.

In order to evaluate how standardization of the occupied area of Costco stores occurred in Taiwan, this study applies the Mann-Whitney U Test to compare the floor areas of the US Costco stores and Taiwan’s Costco stores. The U test result, provided in Table 4.3, shows that the difference of occupied floor size is not significant [$U=32.5$, $p=0.252$] for the median of US Costco stores (= 144,000 sq. feet) compared to Taiwan Costco stores (= 136,000 sq. feet). The null hypothesis, which is that the medians between Costco store floor area in the US and in Taiwan are not significantly different, can be accepted, and the acceptance of this hypothesis implies that Costco’s adoption of a specific floor area in Taiwan reflects a certain degree of standardization based on the floor area in US Costco stores.

Table 4.3

Mann-Whitney U Test Results: Comparison between Costco’s Stores in Taiwan and in the US, and Comparison between Taiwan Costco and Other Retailers in Taiwan

	Comparison between Taiwan Costco and US Costco	Comparison between Taiwan Costco and other retailers in Taiwan			
		Taiwan Costco VS. Carrefour	Taiwan Costco VS. RT Mart	Taiwan Costco VS. Amart Jant	Taiwan Costco VS. other retailers
Mann-Whitney U	32.500	84.0	69.0	32.0	22.5
Wilcoxon W	53.500	1030.0	90.0	53.0	100.5
Z	-1.146	-1.374	-0.156	-0.825	-1.267
P value. (2-tailed)	0.252	0.170	0.876	0.409	0.205

In addition to comparison between Costco stores in the US and Costco stores in Taiwan, Table 4.2 and Figure 4.1 also provide details about the comparison among Costco stores in Taiwan, those of other foreign retailers in Taiwan, and those of other local retailers. In comparison to the average 135,500 sq. feet of Costco stores in Taiwan, the average occupied floor size of other retailers in Taiwan is from 121,000 to 178,000 sq. feet, which is larger than that of Costco stores in Taiwan. However, their size variation is also larger; for

instance, the standard deviation size of RT-Mart is extremely high—156,000 sq. feet, and their biggest store is 712,000 sq. feet, which is about 5.2 times the average size of a Costco store in Taiwan. Another comparison reveals that Carrefour's smallest store is about 33,000 sq. feet. The reason for these extremely huge or quite small sizes of stores is that some of those stores are designed to be flagship stores or miniature neighborhood stores. The boxplot of Figure 4.5 shows that all of the other foreign retailers and local retailers have extreme outliers in terms of size; RT-Mart, indeed, has three cases of extreme outliers. These retailers all provide extremely large flagship stores that Costco does not offer in Taiwan. This information indicates that Costco does not follow practice of other chains in using flagship stores along with smaller stores: Costco's stores are much more similar in size compared with those of Costco's competition. Another point shown by the boxplots in Figure 4.5 is that even if these abnormal outliers are ignored, the size variation among the other retailers is still bigger than that of Costco stores in Taiwan.

In order to compare their occupied floor size to evaluate how size was adapted to market trends, the Mann-Whitney U Test was applied to compare samples between Costco Taiwan and other retailers in Taiwan. The test results given in Table 4.3 show no significant differences, and all of the p values are less than 0.05. Thus, the null hypothesis, which is that the US and Taiwanese store sizes are similar, should be accepted. Likewise, the test result means the localization of sales floor size of Costco stores in Taiwan is not different from that of other retailers although the sizes of the Costco stores in Taiwan are more consistent. Based on the observations above, it can be concluded that Costco's strategy of adaptation with regard to the sales floor areas is not significantly different from that of other retailers Costco Taiwan; however, Costco did not adopt the strategy of special (flagship outlet) stores that other retailers always practiced in Taiwan.

Findings: Product Selection Localization Strategies

Analysis of product data indicates that Costco’s product mix in Taiwan is highly oriented to foreign products. Table 4.4 shows the proportion of product types (foreign vs. domestic) reflecting Costco’s product selection strategy in the US and in Taiwan. Together with pie chart Figure 4.6, it shows that in Taiwan’s market the total proportion of domestic and foreign products in Costco stores is approximately 30% and 60% respectively, and the other 10% is comprised of Costco’s own private products. This result is not consistent with what other literature has reported, which is that only 30% to 40% of goods are foreign-sourced. Table 4.5 provides details about product mix proportion in different categories. Except for two categories shown in Table 4.6, there is a high proportion of imported goods in most categories; in fact, the percentages range from 60% to 78%. In contrast, in two other categories—Fresh Foods and Frozen and Chilled Foods—only 33% and 39% are imported products.

Table 4.4

Product Mix Analysis of the Total Product Line in US and Taiwan Costco Stores

	US		Taiwan	
	f	%	f	%
Domestic brand domestically produced	927	51.50%	401	22.58%
Domestic brand foreign-sourced	445	24.72%	112	6.31%
Foreign brand domestically produced	7	0.39%	101	5.69%
Foreign brand foreign-sourced	134	7.44%	984	55.41%
Costco's brand, Kirkland Signatures	287	15.94%	178	10.02%
Total	1800		1776	

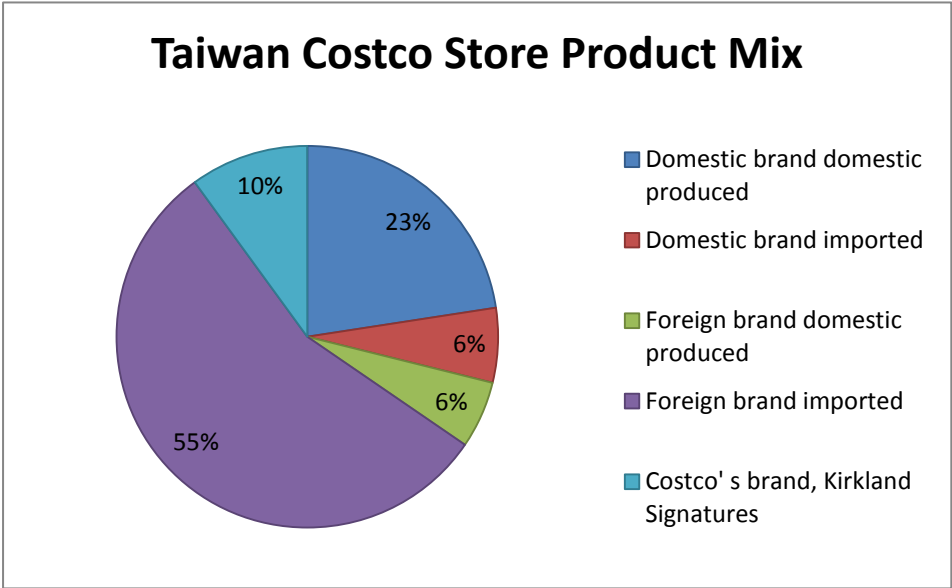
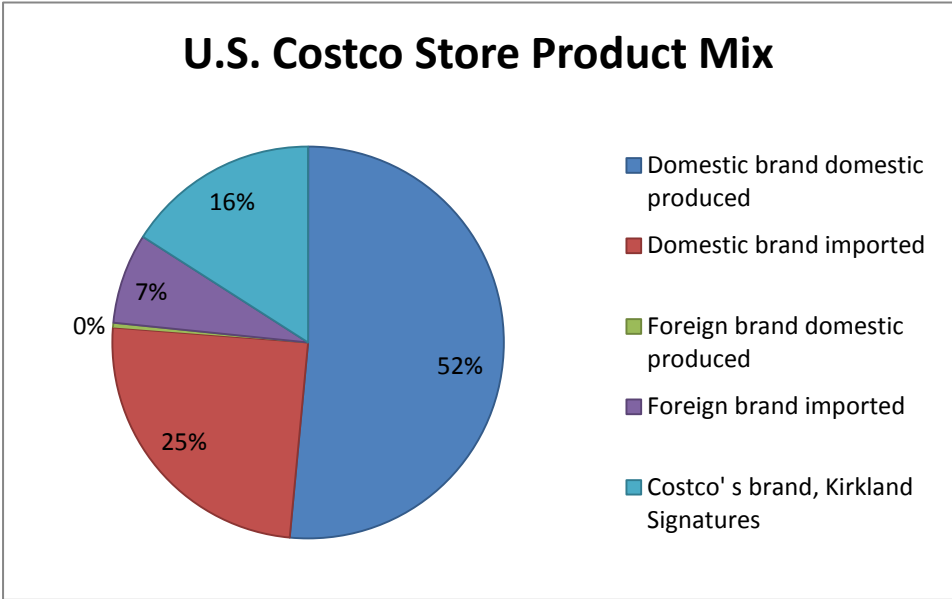


Figure 4.6. Pie chart of Costco's product mix in US and Taiwan markets. (Based on selected stores, the Costco East Plano Store in TX, USA and the Costco ZhongHe Store in Taiwan.

Table 4.5

Product Selection Analysis of Product Line by Product Categories between Costco US and Costco Taiwan

		US		TW		
		f	%	f	%	
Total	Appliances	Domestic products	63	94.03%	20	25.32%
		Foreign-sourced products	4	5.97%	59	74.68%
		Costco brand products	0	0.00%	0	0.00%
	Computer & Electronics	Domestic products	35	67.31%	34	21.38%
		Foreign-sourced products	17	32.69%	125	78.62%
		Costco brand products	0	0.00%	0	0.00%
	Dry Food & Sundries	Domestic products	255	71.83%	77	23.12%
		Foreign-sourced products	26	7.32%	216	64.86%
		Costco brand products	74	20.85%	40	12.01%
	Fresh Food	Domestic products	102	55.43%	86	45.50%
Foreign-sourced products		21	11.41%	64	33.86%	
Costco brand products		61	33.15%	39	20.63%	
Frozen & Chilled Food	Domestic products	181	67.29%	83	41.71%	
	Foreign-sourced products	24	8.92%	78	39.20%	
	Costco brand products	64	23.79%	38	19.10%	
Hardware & Furniture	Domestic products	155	79.49%	84	40.98%	
	Foreign-sourced products	35	17.95%	119	58.05%	
	Costco brand products	5	2.56%	2	0.98%	
Health & Beauty Aids	Domestic products	169	83.25%	28	22.76%	
	Foreign-sourced products	3	1.48%	90	73.17%	
	Costco brand products	31	15.27%	5	4.07%	
Housewares	Domestic products	160	82.90%	38	16.74%	
	Foreign-sourced products	4	2.07%	170	74.89%	
	Costco brand products	29	15.03%	19	8.37%	
Outdoor & Sporting	Domestic products	116	96.67%	39	36.79%	
	Foreign-sourced products	4	3.33%	67	63.21%	
	Costco brand products	0	0.00%	0	0.00%	
Snacks and Candy	Domestic products	136	83.95%	22	17.60%	
	Foreign-sourced products	3	1.85%	79	63.20%	
	Costco brand products	23	14.20%	24	19.20%	

Table 4.6

Product Mix of Fresh Meat and Frozen Meat

		US		Taiwan	
		f	%	f	%
Fresh Meat	Domestic	19	35.85%	0	0.00%
	Foreign	0	0.00%	7	31.82%
	Costco	34	64.15%	15	68.18%
Frozen Meat & Sausage	Domestic	19	34.55%	16	88.89%
	Foreign	1	1.82%	1	5.56%
	Costco	35	63.64%	1	5.56%

(The details of other sub-categories are shown in the Appendix)

If we examine the comparison details by sub-category, there are some important results that did not turn out as expected. A first observation is that the product mixes of both fresh meat and processed meat are quite different from the study expectations, which were that traditional domestic frozen meat or processed meat products (e.g. American style sausages) would be offered more than foreign products. Table 4.6 indicates that domestic and private brand fresh meat selected in Costco stores in the US are about 35.85% and 64.15% respectively, and no fresh meat products are imported. By contrast, in Costco stores in Taiwan, 31.82% of fresh meat is imported, 68.18% is provided by Costco’s private brand, and there are no products sourced locally. The reason may be that beef is not prevalent in Taiwanese delis, and Costco Taiwan primarily selects US choice beef in their product mix for their fresh meat strategy. However, the product mix of processed meat is the exact inverse of that of fresh meat. Approximately 90% of processed meat products are domestic products, but very rarely are products imported or supported by Costco’s own brand. From the list of products in the sample, most of the processed meats are Chinese-style sausages and traditional Asian-style meats instead of typical American sausage and bacon. Against all expectations, this result is very different from the assumption, which was that imported processed and frozen food would be widely selected by Costco in Taiwan.

The second interesting result is related to fresh versus frozen products in vegetables and seafood. In Taiwan Costco, the frozen product categories are not selected as frequently as they are in the US Table 4.7 provides the details related to products in these sub-categories. There are only 6 kinds of frozen vegetable merchandise in Taiwan, which is significantly less than the 16 kinds available in the US Also, among fresh seafood products in Taiwan, 50% are sourced locally, whereas there are no domestic fresh seafood items offered in the US Moreover, the imported seafood items in Taiwan are specialty seafood items that are scarce in the region around Taiwan, such as scallops, king crabs, or lobsters. Indeed, in the interview with the assistant manager of the International Department of Costco, she stated that Asian customers are very demanding with regard to the quality of the seafood they will purchase.; especially in Taiwan, Japan, and Korea, fresh seafood is a principal strategy in East Asia markets (S. Schukar, personal communication, June 11, 2010). Hence, frozen food is not popular in Taiwanese markets.

Table 4.7

Product Mix of Fresh Vegetables, Fresh Seafood, Frozen Vegetables, and Frozen Seafood

		US			TW	
			f	%	f	%
Fresh Food	Fruit & Veg.	Domestic	42	68.85%	41	67.21%
		Foreign	19	31.15%	20	32.79%
		Costco	0	0.00%	0	0.00%
	Sea Food	Domestic	0	0.00%	11	52.38%
		Foreign	0	0.00%	6	28.57%
		Costco	14	100.00%	4	19.05%
Frozen & Chilled Food	Seafood	Domestic	15	65.22%	7	36.84%
		Foreign	0	0.00%	3	15.79%
		Costco	8	34.78%	9	47.37%
	Veg.	Domestic	10	62.50%	0	0.00%
		Foreign	1	6.25%	4	66.67%
		Costco	5	31.25%	2	33.33%

(The details of other sub-categories are shown in Appendix A)

In addition to the findings about vegetables and seafood products, the third noteworthy result is that a few of the sub-categories are very different from those in the US, which is attributable to lifestyle behaviors. The gardening section is not offered in Taiwan; in addition, related outdoor activity products are also fewer. A total of only 9 outdoor products are offered in Taiwan (shown as Appendix A), which is a number significantly smaller than that in the US. This may be because the majority of housing is in the form of apartments and mansions which are without front and back yards, and people's leisure style is quite different from US habits. In contrast, toys and related child products are selected more frequently than they are in the US. According to the result (the details of which are shown in Appendix I), the number of products in the toy sub-category is more than 50, which is conspicuously more than the 3 toy products offered in the US.

Assessment of only the proportion of products between domestic and imported goods, however, is not sufficient to provide a comprehensive understanding of product selection decisions. In addition to that assessment, a geographic analysis approach, whose purpose is to assess where merchandise comes from, can assist in the overall understanding of Costco's product selection strategies. For purposes of geographic analysis, the world can be divided into six regions, as shown in Table 4.8. This regional classification attempts to identify areas in which the culture and backgrounds are similar. For example, Turkey is included as part of Europe instead of Asia reflecting the belief that Turkish culture is more closely related to European culture. The results of the geographic analysis are shown in Table 4.9 and Figure 4.7. The results clearly show that in US markets, 90% of products are selected from the North American region, but in Taiwanese markets, 45% of products are selected from each of the North American region and the East Asian region. In light of the fact that the product mix between foreign and domestic goods is 60% imported to 30% domestic in Taiwan, this discrepancy indicates that although 60% of products are imported, only 45% of them are sourced from North America, where the retailer originated. The other 15% of

products are selected from the regions surrounding Taiwan, such as Japan and Korea. This shows that Costco's product selection strategies in Taiwan certainly adapt to the cultural diversity between Taiwan and the US

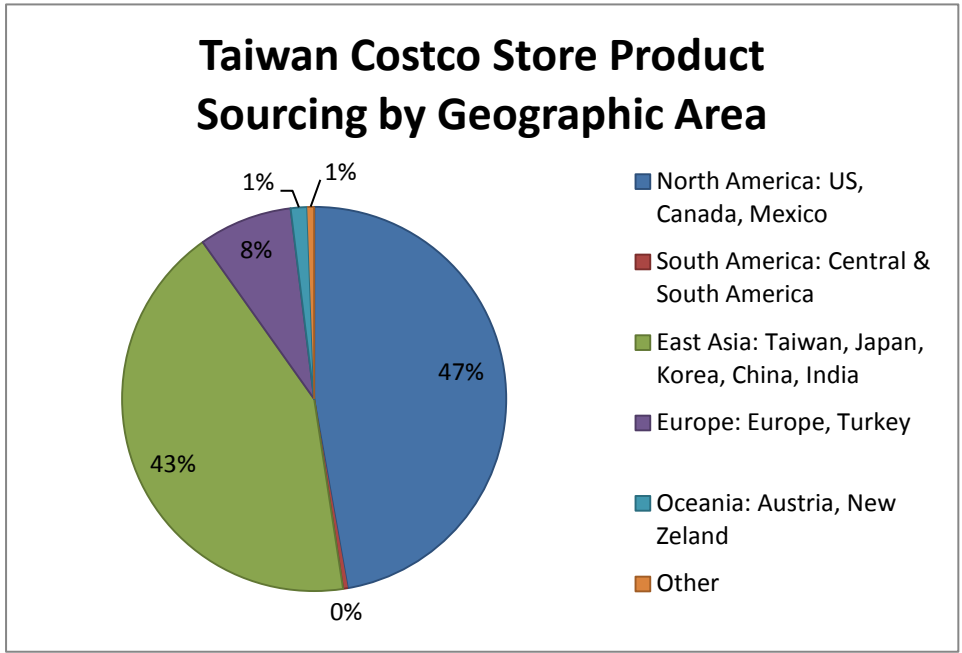
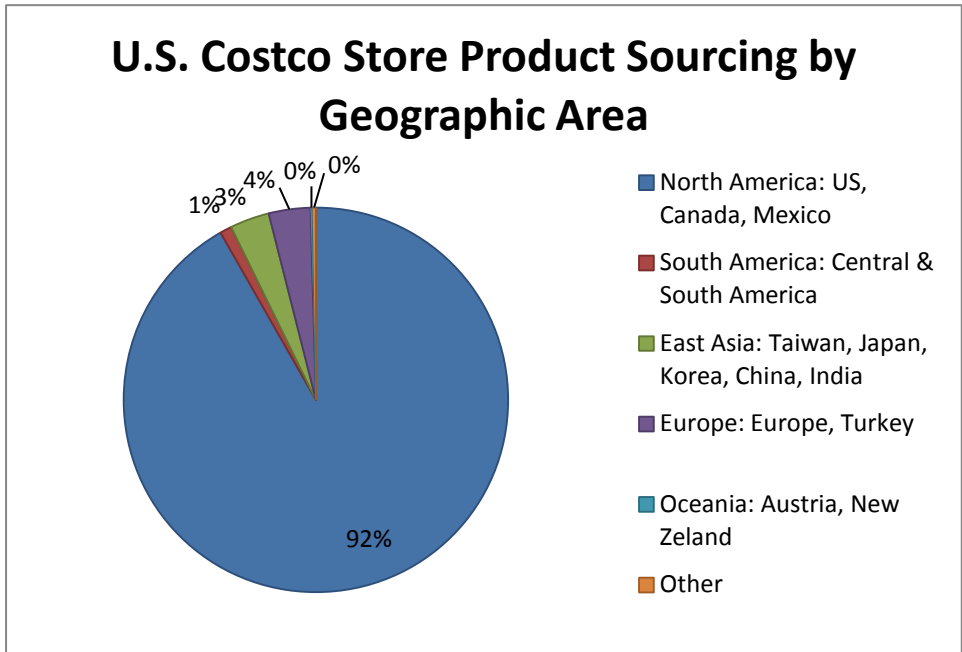


Figure 4.7. Pie chart of Costco Store Product Sourcing by Geographic Area Comparing Costco US and Costco Taiwan. (Based on products offered in sample stores, Costco East Plano Store in TX, USA and Costco ZhongHe Store in Taiwan for each chart.)

Table 4.8

Regional Classification of the Geographic Analysis of Product Mix

NA	North America	US, Canada, Mexico
SA	South America	Central and South America
EA	East Asia	Taiwan, Japan, Korea, China, India
EU	Europe	Europe, Turkey
OC	Oceania	Austria, New Zeland
Other	Other	

Table 4.9

Geographic Analysis of the Product Line between Costco US and Costco Taiwan

	US		Taiwan	
	F	%	f	%
North America	1645	91.75%	821	47.18%
South America	18	1.00%	7	0.40%
East Asia	59	3.29%	741	42.59%
Europe	63	3.51%	137	7.87%
Oceania	3	0.17%	24	1.38%
Other	5	0.28%	10	0.57%
Total	1793		1740	

More details of the geographic analysis become clear when particular product categories are assessed individually. First, Table 4.10 shows that, by categories, the proportion of products from East Asia ranges from 35% to 60%, and the proportion in the categories of Fresh Food, Computers & Electronics, and Frozen & Chilled Food tends to be higher, at about 60%. Moreover, some sub-categories (Fruit & Vegetables, Rice & Noodles, Sundry, Bread, Car Supplies, and Illumination) are over 80%, whereas certain sub-categories, including House-wares and Snacks & Cookies, tend to have a lower proportion of products from the East Asian region. Second, in Taiwan, products imported and selected from Europe have a higher proportion than they do in the US. In fact, those products make up 7.87% of products in Taiwan, which is more than double the proportion (3.51%) found in Costco

stores in the US (Table 4.9).

Table 4.10

Geographic Analysis of Product Line by Product Categories between Costco US and Costco Taiwan

		US			TW	
			f	%	f	%
Total	Appliances	NA	59	88.06%	35	44.87%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	26	33.33%
		EU	8	11.94%	17	21.79%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
		Computers & Electronics	NA	32	66.67%	48
	SA		0	0.00%	0	0.00%
	EA		15	31.25%	90	57.32%
	EU		1	2.08%	19	12.10%
	OC		0	0.00%	0	0.00%
	Other		0	0.00%	0	0.00%
	Dry Food & Sundries		NA	321	89.66%	166
		SA	6	1.68%	6	1.80%
		EA	11	3.07%	130	39.04%
		EU	17	4.75%	16	4.80%
		OC	0	0.00%	6	1.80%
		Other	3	0.84%	9	2.70%
		Fresh Food	NA	165	89.67%	64
	SA		11	5.98%	0	0.00%
	EA		4	2.17%	116	61.38%
	EU		1	0.54%	3	1.59%
	OC		3	1.63%	6	3.17%
	Other		0	0.00%	0	0.00%
	Frozen & Chilled Food		NA	239	90.19%	60
		SA	1	0.38%	1	0.50%
		EA	3	1.13%	107	53.77%
		EU	22	8.30%	27	13.57%
OC		0	0.00%	3	1.51%	
Other		0	0.00%	1	0.50%	
Hardware & Furniture		NA	173	88.72%	95	46.80%
	SA	0	0.00%	0	0.00%	
	EA	21	10.77%	99	48.77%	
	EU	1	0.51%	9	4.43%	

Table 4.10 (continued).

		US			TW	
			f	%	f	%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
Health & Beauty Aids		NA	197	97.04%	73	59.35%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	33	26.83%
		EU	6	2.96%	13	10.57%
		OC	0	0.00%	4	3.25%
		Other	0	0.00%	0	0.00%
Housewares		NA	184	96.34%	150	66.08%
		SA	0	0.00%	0	0.00%
		EA	4	2.09%	55	24.23%
		EU	3	1.57%	22	9.69%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
Outdoor & Sporting		NA	116	96.67%	60	56.60%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	46	43.40%
		EU	2	1.67%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	2	1.67%	0	0.00%
Snacks and Candy		NA	159	98.15%	70	56.00%
		SA	0	0.00%	0	0.00%
		EA	1	0.62%	39	31.20%
		EU	2	1.23%	11	8.80%
		OC	0	0.00%	5	4.00%
		Other	0	0.00%	0	0.00%

(NA: North American region, SA: South American region, EA: East Asia region, EU, Europe region, OC: Oceania region, and Other: Other places excluded from the above regions. More details are shown in Table 4.9)

Some non-food and candy product types have higher proportions of European products in Taiwan. For instance, Cookware and Chocolate sub-category items in Costco Taiwan are about 48% and 43% imported from Europe (Appendix B includes a detailed breakdown of these results). Those percentages are higher than those in the US. In addition, most of the sub-categories in Taiwan include some products selected from Europe, while this is not the case for Costco in the US. However, the geographic product mix of products in the cheese

sub-category is similar between the US and Taiwan. Similarly, in the Oil sub-category, a certain portion of oil products are imported from Eastern Europe, the place which produces the majority of olive oil. East Asian products make up a small percentage of oil products in Taiwanese markets, and products sourced from Eastern Europe have significant portions in both market areas. To summarize, Costco Taiwan selects more products from East Asia and Europe than Costco US although Costco in Taiwan has 60% foreign goods.

Completion of the descriptive statistical analysis makes it possible to evaluate the degree of localization or standardization adopted by Costco in Taiwan and to assess Costco's localization strategies of product selection. A *Chi-square Test of Independence* assessed whether Costco's product selection strategies (in a product mix of 5 types) is associated with different market areas (the US and Taiwan). The test result (shown in Table 4.11) shows that the association between the product selection strategies for different markets is significant; the p value ($\chi^2 = 1160.92$, $p=0.00$) indicates a low degree of localization of the product selection strategies, which means that Costco's product selection strategy is not highly adapted to Taiwan's market.

Table 4.11

Chi-Square Test of Independent Results of Product Mix Analysis

	Value	Degree of freedom	P-value (Sig.)
Pearson Chi-Square	929.891 ^a	4	.000
Likelihood Ratio	991.849	4	.000
Linear-by-Linear Association	474.744	1	.000
Number of Valid Cases	3579		

Also, chi-square tests results (shown in Table 4.12) for each category's product types also show a significant result, which points to less localization. However, there are 4 sub-categories that have the opposite outcome. The Chi-square test results of Table 4.13

show that Rice & Noodles ($X^2 = 0.003$, $p=0.957$), Sundries ($X^2 = 1.440$, $p=0.486$), Fruit &Vegetables ($X^2 = 0.038$, $p=0.846$), and Dairy ($X^2 = 3.290$, $p=0.193$) are not significant; in other words, these sub-categories are subject to a higher degree of localization and adaptation to Taiwan’s markets.

Table 4.12

Sourcing Analysis Result of Chi-Square Test of Independence by Product Categories between Costco US and Costco Taiwan

	Pearson Chi-Square	Likelihood Ratio	Linear-by-Linear Association	N of Valid Cases	P-value (Sig.)
Appliances	79.97	93.34	47.39	146	0.00
Computer & Electronic	89.99	81.42	13.89	211	0.00
Dry Food & Sundries	255.89	287.92	98.55	688	0.00
Fresh Food	31.31	33.93	0.66	373	0.00
Frozen & Chilled Food	68.96	75.29	16.51	468	0.00
Hardware & Furniture	80.54	85.88	28.87	400	0.00
Health & Beauty Aids	211.97	244.89	95.71	331	0.00
House-wares	237.86	290.54	119.49	420	0.00
Outdoor & Sporting	93.69	106.93	81.97	226	0.00
Snacks and Candy	153.68	183.39	87.28	287	0.00

Table 4.13

Product Mix Analysis Result of Chi-Square Test of Independent for Four Sub-Categories

	Chi-square Value	Sig
Rice & Noodles	0.003	0.957
Sundries	1.44	0.486
Fruit &Vegetables	0.038	0.846
Dairy	3.29	0.193

(The details of other sub categories are shown in the Appendix A)

To summarize, Costco’s practices in Taiwan are characterized by a low degree of localization strategy with regard to product selection, and the high proportion of foreign products that are offered results from a selection process similar to that used by Costco in the US. However, some product types such as Fruits & Vegetables show a comparatively higher degree of adaptation to Taiwan markets, where the culture and diet habits are

significantly different; also, foreign products from Europe and East Asian countries are comparatively more frequently selected in Taiwan. In conclusion, Costco in Taiwan does not offer the same product line offered in the home country; however, Costco does not practice a high degree of localization strategy in product selection. Given Costco's record of success, it must be concluded that Costco's flexibility in pursuing a low degree of localization strategy of product selection is practical in the Taiwanese market.

Findings: Supplier Sourcing Network Localization Strategies

Costco's sourcing strategies in Taiwan are quite different from those of Costco in the US. The pie chart in Figure 4.8, together with Table 4.14, clearly shows that the proportion of the sourcing from 5 different firm types is dissimilar between Costco in the US and Costco in Taiwan.

Table 4.14

Total Supplier Sourcing Analysis between Costco US and Costco Taiwan

	US		Taiwan	
	Number of suppliers	%	Number of suppliers	%
Domestic firm	1327	73.56%	444	25.01%
Domestic subsidiaries of foreign firms	67	3.71%	350	19.72%
Foreign subsidiaries of Domestic firms	2	0.11%	2	0.11%
Foreign firms	99	5.49%	485	27.32%
Costco	309	17.13%	494	27.83%
Total	1804		1775	

In Taiwan, excluding the firm type foreign subsidiaries of domestic firms, which represents a negligible portion of the total, the proportions of the sourcing between the other 4 firm types were nearly equal at about 25%. Indeed, the firm type of Costco and their cooperating companies occupied the greatest proportion at about 28%, and domestic firms accounted for only 25% of the sourcing. However, in the US., the firm type of domestic firms occupies approximately three quarters at about 74%, and the remaining 26% is occupied by other

firm types. Of that 26%, 17% is accounted for by Costco and its cooperating companies (*i.e.*, companies that manufacture products that will be labeled with Costco’s store brand or that manufacture products specifically for Costco). Based on these numbers, it can be seen that the network of Costco’s suppliers in its home country, US, is significantly different from that in Taiwan.

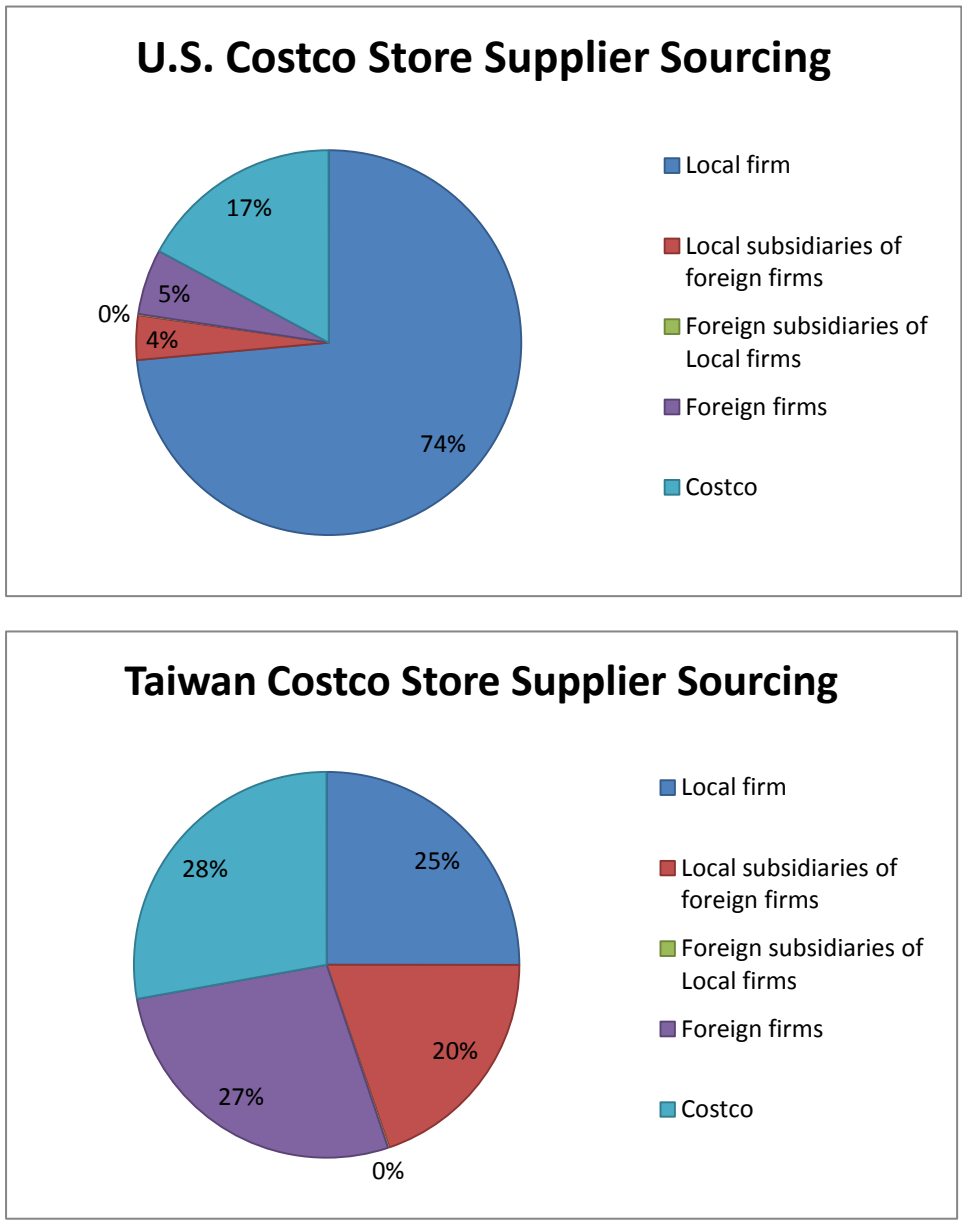


Figure 4.8. Pie chart of Costco’s total supplier sourcing between Costco US and Costco Taiwan. (Based on the sample stores Costco East Plano Store in TX, USA and Costco ZhongHe Store in Taiwan.)

It is interesting to note that the firm type of Costco and its cooperating firms occupies the highest proportion of sourcing firms in Taiwan. Taking into consideration different product categories, food products (including fresh food, frozen food, dry food, and snacks) are mainly supported by Costco's own firm. Table 4.15 shows that fresh food is the category that is most sourced by Costco and its cooperating companies, which supply about 79% of products in the fresh food category. The proportion for other food categories ranges approximately from 35% to 41%. In contrast, among non-food products, only housewares has a significant proportion, at 25%, compared to other non-food product categories, whose proportion supplied by Costco's own firms is around 5% or even 0%. On the other hand, the non-food products not supported by Costco (such as appliances, computers, and electronic products) are sourced locally to a high degree. These domestic firms include Taiwanese companies, importers, commercial agent companies, and foreign subsidiaries in Taiwan. Table 4.15 shows that 100% of computers and related products are provided by domestic suppliers. Also, 94% of electronic products are sourced from Taiwanese suppliers. In addition to these non-food products, frozen meat is also selected from domestic firms. This is unsurprising given that most frozen meat is of a traditional style that only domestic brand companies produce and sell.

A review of these numbers suggests that Costco's supplier network strategies in Taiwan are quite different from those of Costco in the US. In order to determine how localization and standardization were carried out by Costco in Taiwan, the Chi-square Test of Independence was applied to assess whether Costco's sourcing supplier strategies (with suppliers of 5 types) associate with their different market areas (the US and Taiwan).

Table 4.15

Supplier Sourcing Analysis by Product Categories between Costco US and Costco Taiwan

		US		TW		
		f	%	f	%	
Total Suppliers	Appliances	Domestic	63	94.03%	55	69.62%
		Foreign	2	2.99%	24	30.38%
		Costco	2	2.99%	0	0.00%
	Computer & Electronics	Domestic	47	97.92%	152	95.60%
		Foreign	1	2.08%	6	3.77%
		Costco	0	0.00%	1	0.63%
	Dry Food & Sundries	Domestic	278	77.44%	119	35.74%
		Foreign	7	1.95%	90	27.03%
		Costco	74	20.61%	124	37.24%
	Fresh Food	Domestic	100	58.48%	28	17.18%
		Foreign	10	5.85%	7	4.29%
Costco		61	35.67%	128	78.53%	
Frozen & Chilled Food	Domestic	185	68.52%	90	45.23%	
	Foreign	21	7.78%	39	19.60%	
	Costco	64	23.70%	70	35.18%	
Hardware & Furniture	Domestic	173	88.72%	136	66.34%	
	Foreign	17	8.72%	59	28.78%	
	Costco	5	2.56%	10	4.88%	
Health & Beauty Aids	Domestic	159	77.56%	45	36.59%	
	Foreign	7	3.41%	71	57.72%	
	Costco	39	19.02%	7	5.69%	
House-wares	Domestic	149	77.20%	54	23.79%	
	Foreign	14	7.25%	117	51.54%	
	Costco	30	15.54%	56	24.67%	
Outdoor & Sporting	Domestic	88	73.33%	62	59.05%	
	Foreign	22	18.33%	30	28.57%	
	Costco	10	8.33%	13	12.38%	
Snacks and Candy	Domestic	139	85.80%	31	24.80%	
	Foreign	0	0.00%	42	33.60%	
	Costco	23	14.20%	52	41.60%	

The result, given in Table 4.16, was that the sourcing strategies and different markets are significantly associated; the p value ($\chi^2 = 929.89$, $p=0.00$) indicates a low degree of localization of the supplier sourcing strategies, which indicates that Costco's supplier sourcing strategy is not highly adapted to Taiwan's market although its strategy is also not similar to that of the home-base markets. Furthermore, significant results (Table 4.17) of the Chi-square test were found for each product category. This outcome implies that Costco in Taiwan does not highly adapt its sourcing strategy for different product categories even

though some categories' product lines are more adapted to local markets.

Table 4.16

Result of the Chi-Square Test of Independence by Total Product Line between Costco US and Costco Taiwan

	Value	df	Sig.
Pearson Chi-Square	929.891	4	.000
Likelihood Ratio	991.849	4	.000
Linear-by-Linear Association	474.744	1	.000
Number of Valid Cases	3579		

Table 4.17

Sourcing Analysis Result of the Chi-Square Test of Independence by Product Categories between Costco US and Costco Taiwan

	Pearson Chi-Square	Likelihood Ratio	Linear-by-Linear Association	Number of Valid Cases	P-value (Sig.)
Appliances	48.77	53.91	26.97	146	0.00
Computer & Electronics	28.16	26.79	17.50	207	0.00
Dry Food & Sundries	229.85	253.97	127.79	692	0.00
Fresh Food	64.63	67.58	62.97	334	0.00
Frozen & Chilled Food	28.39	28.47	22.26	469	0.00
Hardware & Furniture	70.91	73.53	48.06	400	0.00
Health & Beauty Aids	220.59	250.41	53.46	328	0.00
Housewares	169.77	189.33	112.94	418	0.00
Outdoor & Sporting	47.37	57.83	11.58	225	0.00
Snacks and Candy	138.33	162.28	101.67	287	0.00

To summarize, Costco's localization strategy of supplier sourcing networks is not highly adapted to the Taiwanese market. Appliances, computers, and electronic merchandise are highly sourced from domestic producers or through commercial agents. Also, food products (beside frozen meats) are supported to a high degree by Costco and their cooperating firms, in a proportion which is not less than the proportion of sourcing

from domestic suppliers only. The results here indicate that a low degree of localization of supplier sourcing and a high degree of sourcing from Costco's cooperating companies are characteristic of Costco's sourcing strategies in Taiwan.

CHAPTER 5

DISCUSSION AND CONCLUSION

Discussion

This research has analyzed transnational retailer Costco's localization strategy in Taiwanese markets via an analysis of the outlet format, the product line, and data regarding suppliers. The research findings show that Costco in Taiwan has not pursued a strategy involving a high degree of localization in its site adaptation, product mix selection, and supplier sourcing decisions. With regard to the first study focus of site decision strategies, Costco's average store floor area in Taiwan is similar to that of Costco in the US, and the size is not significantly smaller and less varied than that of other competing retailers in Taiwan. However, in order to adapt to the limitations in available land, Costco's typical store format in Taiwan is designed as a multi-storey building which integrates a parking lot, market area, service space, and office into one construction. The second study area of product selection strategies, focusing on the comparative geography of domestic versus foreign merchandise relating to product lines, reveals that Costco's product mix in Taiwan does not show a high degree of adaptation to Taiwanese culture as opposed to that of the company's home market. However, considering different product categories, the strategies for some categories (such as frozen food, sea food, and sundries) are quite different in Taiwan as compared to the US. Moreover, although the source of their products is foreign, a certain proportion of the products are selected regionally from surrounding countries near Taiwan. This result shows a difference from what Costco does in the US although product mix strategies in Taiwan follow a certain degree of standardization. Finally, the third study focus of supplier sourcing strategies investigates Costco's supplier network in Taiwan. The finding demonstrates that in Taiwan, the supplier types (excluding foreign subsidiaries of domestic firms) represent approximately equal proportions of the total (as shown in Figure 4.4), which is different from the strategy of Costco in the US, where three quarters of sourcing is from

domestic firms. Also, the high degree of sourcing from Costco's own firms and their cooperation firms is an important finding. Taking these results as a whole, it is apparent that Costco uses a low degree of localization and a higher degree of sourcing from their cooperating companies as their supplier sourcing strategy.

These results relate to a more complete understanding of localization activities of transnational retailers and to future directions for research in retail-economic geography. The finding linked to the first question implies that a company's adapting its retail format into a new form is essential to the localization of site decision strategies in East Asia expansion. Taiwan's cities, like typical Asian cities, are characterized by limited availability of land and high density population. Previous research suggested the use of buildings with smaller footprints and multi-floor styles in East Asian markets as a solution to this challenge (Tacconelli & Wrigley, 2009). In order to overcome the barriers of limited availability of land, Costco, in its expansion to Taiwan, modified its stores' physical format into a vertical multi-floor form, but they did not pursue a high degree of adaption with regard to the overall area of the store. The finding shows that they followed a path of standardization. Costco's stores in Taiwan are not significantly smaller than its stores in North America. In addition, Costco also exactly kept and copied the services which their stores offer in the company's home country, and it did not follow other competitors with relation to the format of their (the competitors') flagship stores, which integrate shopping mall and food court functions so that they can attract more consumers and can provide rental spaces to reduce land cost. Hence, except for adjusting to a vertical building format, Costco pursued a lesser degree of localization and higher degree of standardization in store format decisions.

Furthermore, Costco began its Taiwanese expansion with the country's first-tier cities: it opened its first store in the largest industrial city, Kaohsiung metro in southern Taiwan, and three stores in the capital city, Taipei metro in northern Taiwan. Since this initial expansion, Costco has focused on Taiwan's second-tier cities. Mr. Sihan Chang, General

Manager of *Costco President Taiwan, Inc.*, in an interview in 2009 indicated that Costco is planning projects and seeking appropriate lands around Taichung, Taoyuan, Hsinchu, and Tainan cities (Yan, 2010). As shown in Map 3.1, these city metros are the majority of second-tier cities in Taiwan, and these second-tier cities are located near the metro areas of the first tier cities (Taipei and Kaohsiung), which are high-tech industrial cities, educational cities, and historic cities. Therefore, the citizens in these second tier cities possess high population and purchasing power beneficial to Costco. This strategy of site expansion of Costco in Taiwan is similar to that of Wal-Mart in China. Expansion to the regions encompassing second-tier cities can offer huge population with increasing income and great market potential (Tacconelli & Wrigley, 2009).

In order to obtain appropriate property or land in Taiwan's tight retail property market, Costco focused on available lands resulting from the projects of land replotting. The projects of land replotting, which reform old neighborhoods and narrow road grids into useable land plots, is one typical method of urban development in the cities of Taiwan. This allows for investors who require large land areas (e.g. big box retailers, property developers, or public facilities) for their businesses within developed or developing cities. In the case of Costco, three of six stores in Taiwan were obtained from land replotting through collaboration with city developers. The literature suggests that collaboration with business partners, including public and private property developers, retail leasing agents, and the retailer's expansion cooperating firms, is indispensable to foreign business (Laulajainen, 1988; Tacconelli & Wrigley, 2009). Costco in Taiwan endeavors to collaborate with city developers in both projects of land replotting and the scheme of BOT (Build-Operate-Transfer) (Yan, 2010). The collaboration with government agents is practiced as an application of network embeddedness in GPNs. Not only should inter- and intra-firm actors be considered as essential elements of networks, but also extra-firm or non-firm actors (city developers in the case here) are also very important to transnational retailers' global

expansion. Costco's application of these methods in Taiwan is a good example of the operation of the GPN framework.

Similarly, the finding linked to the second question relates to an issue of theoretical interest. Previous research indicates that the product mix selections should be modified and embedded in the host country's culture, institutions, and consumer behavior (Coe and Lee, 2006; Grewal & Levy, 2007). A huge product range, which many successful foreign retailers, such as Tesco in South Korea, achieved in East Asia expansion, can easily be applied as part of a territorially embedded model (Coe and Lee, 2006). However, Costco's expansion in Taiwan pursued a reversed product range strategy; more specifically, Costco offered only approximately 4,000 selected merchandise items, which is significantly less than the 80,000 products that other competing retailers offer. Mr. Chang, General Manager of Costco in Taiwan, stated that the reason for offering a small product range is to focus on their merchandise specialty, which is selected imported products, at about 45% of the total (Lu, 2009; Yan, 2010). The result of this research also shows that about 60% of products are sourced from outside of Taiwan, and from a regional point of view, 45% of the total number of products are imported from North America, and the remaining 15% of imported products are mainly sourced from the surrounding countries in East Asia. Although Costco's product range strategy in Taiwan pursues a lower degree of variation of merchandise, the strategy of specialty products mix selection gives it an advantage over the other competitors. This finding also indicates that Costco's strategy of offering a high proportion of imported products is practicable and realizable in Taiwan.

In addition to the strategies of a smaller product range and of offering a high proportion of imported products, the findings are also linked to the issue of embeddedness in the GPN framework. The two-way process of societal embeddedness is essential to adapt to the variance of the cultural, institutional, and economic environment as compared to a retailer organization's home market (Coe & Lee, 2006; Tacconelli & Wrigley, 2009). Costco in

Taiwan insisted on a policy of standardization because of its faith in the model that was successful in the company's home country; for example, Costco insisted on keeping the huge package design, charging member fees, and offering high quality fresh beef in the process of adapting to a different market environment. Mr. Chang stated that they spent their first five years inducing Taiwanese consumers to adjust to Costco's way (Yan, 2010). This is a good example of the principle of societal embeddedness: markets may be impacted by new retail styles. In contrast, the research finding also shows that Costco in Taiwan highly modified and adapted some product categories, such as fresh foods and fresh sea food. Similarly, in an interview, an assistant buyer in the international department of Costco US stated that the sea food preference in East Asia markets should not be disregarded, and an abundant variety of sea foods is selected from Asian countries (Schukar, personal communication, June 11, 2010). In this way, not only does Costco adapt to Taiwan's markets, but also they may gain certain source suppliers for their home markets. Briefly, in the area of societal embeddedness, Costco applied fewer localization strategies of product selection, yet they can balance the institutional and cultural impacts between the new markets and their retailer policies.

The finding linked to the third research area is related to the retailer's supplier network relationships. The supplier network relationships are difficult to consolidate for transnational retailers in host countries (Coe & Wrigley, 2007; Coe & Lee, 2006; Coe & Hess, 2005). Maintaining power and control in the relationship between retailers and suppliers is a key requirement for foreign retailers. However, the analysis shows that Costco in Taiwan uses a higher proportion of its own brand producers and cooperating suppliers than other types of suppliers, which is not similar to the practice of typical successful transnational retailers. For instance, Carrefour's and Tesco's expansion in East Asia had no other choice but to rely on the abundance of intermediate suppliers and vendors within the countries which provide the majority of the potential base (Coe & Hess, 2005, Coe & Wrigley,

2007; Coe & Lee, 2006; Hitoshi, 2003). The high proportion of imported goods in the product lines indicates that Costco's sourcing strategy does not concentrate on domestic suppliers, and also that Costco utilized the global procurement system for all of the Costco subsidiaries around the world. This system can provide the best information and allows the company to deal with the global supplier networks instead of focusing on local suppliers (Yan, 2010). This system not only provides an advantage to Costco's worldwide subsidiaries, but Costco's headquarters also gain the benefit of access to high quality products and better prices provided by firms in foreign host countries. For example, an assistant buyer in the international department of Costco, in an interview, stated that Asian markets are very demanding about the quality of seafood products they will consume, and suppliers in those markets, who can provide better quality and values, can offer an alternative choice for Costco in the US (Schukar, personal communication, June 11, 2010). This is a good example of a two-way linkage between two regions, which stands in contrast to a simple one-way linkage.

In addition to the issue of domestic vs. centralized sourcing, increasing levels of global sourcing concurrent with the expansion from home to host markets for transnational retailers is another result of changes in supply chain strategy (Coe & Hess, 2005; Tokatli, 2008). A comparison of two results of this study, those of product mix and supplier sourcing analysis, leads to the interesting conclusion that the proportions shown in these two results are not similar. More specifically, the difference shown in Table 5.1 reveals how Costco sourcing strategies were carried out in the case of the operation in Taiwan. The percentage of domestic products would be expected to be tied to the percentage of sourcing from local suppliers; nevertheless, the percentage (55.41%) of the foreign products within the product mix is significantly dissimilar to the percentage (27.32%) of foreign suppliers within the supply network. In fact, one portion of the imported products is sourced from importers, vendors, or foreign subsidiaries in Taiwan. That explains why the percentage of the supply

sourcing given to local suppliers is 14.03% higher than might be expected in the third row of Table 5.1.

Another portion of the products is directly sourced from Costco’s supply network in the company’s home country, the US. This explains why the percentage of the supply sourcing given to Costco’s cooperating suppliers is 17.81% higher than might be expected in the fifth row of Table 5.1. For example, electronic merchandise, the majority of which is of Japanese brands, is mainly sourced from Taiwanese agents; moreover, house-wares and other non-food merchandise are mainly sourced from Costco’s supplier lists, the suppliers in which are located worldwide. These results support the idea that sourcing strategies in the GPN framework that depend on different product types, especially with relation to the non-food product line, can directly involve foreign producers, local agents and wholesalers, or foreign subsidiaries of transnational manufacturers (Coe & Hess, 2005). In the process of network embeddedness in Taiwan, although Costco’s strategies did not highly concentrate on collaboration with local suppliers, their strategies of avoiding intermediaries and of centralization of procurement were able to maintain and improve Costco’s bargaining power and value within retail markets in Taiwan

Table 5.1

Comparison of the Two Results of Product Mix and Supplier Sourcing Network Analysis

	Product mix		Supplier sourcing	
Domestic brand domestically produced	22.58%	+2.43	25.01%	Domestic firm
Domestic brand foreign-sourced	6.31%	-6.20	0.11%	Foreign subsidiaries of Domestic firms
Foreign brand domestically produced	5.69%	+14.03	19.72%	Domestic subsidiaries of foreign firms
Foreign brand foreign-sourced	55.41%	-28.09	27.32%	Foreign firms
Costco's brand, Kirkland Signatures	10.02%	+17.81	27.83%	Costco

In summary, this research analyzed the data relating to the retailer's site size and product line to assess how leading retailer Costco carried out the strategies of localization in Taiwanese markets. The result of the three study foci—site decision, product mix selection, and supplier sourcing—showed that Costco managed the strategy of lesser degree of localization as compared to other retailers in Taiwan. In the site decision strategies, change of store format and cooperation with non-firm actors were steps taken by Costco as they applied both territorial and network embeddedness to adapt to the environmental and institutional difference between Taiwan and the US. Then, in the products mix selection, Costco emphasized imported merchandise and a smaller products range that provided the specialty items to local consumers. This specialty strategy resulted in a two-way process of social embeddedness in which the retailer and the market adapted to each other. In the last of the study foci, Costco's supplier sourcing strategies were found to concentrate on the centralization of global sourcing so that they could create higher value and power through network embeddedness. Costco's expansion into Taiwan, adopting the strategies of a lesser degree of localization to Taiwanese markets, is an instructive case of global expansion for transnational retailers.

Conclusion

This study has pointed out how Costco embedded itself into Taiwanese markets, where it has performed well, and the research illustrated how Costco strategically made decisions to adapt to three aspects of the retail business—sites, products, and suppliers. Costco's strategies in Taiwan demonstrate a good example of the balance between localization and standardization. However, the findings related to the research topic do not comprehensively resolve debates over localization issues. Hence, for future research, three issues should receive additional attention.

First, the balance of localization and standardization in the expansion strategies of

transnational retailers should be more fully clarified. The example of Costco's Taiwan expansion is only a case study that relates to only part of the issue of localization in the GPN framework. Localization is an essential component of any retailer's global expansion strategy as it adapts to foreign host markets. However, Costco's standardization strategies in this case study, which take advantage of the efficiencies such company-wide operations can bring, may well be considered by other transnational retailers. Hence, further studies should be carried out to provide additional evidence related to the issue of standardization so that the debate between localization and standardization can be given a more thorough examination.

Second, the two-way linkage between home and host countries should become a topic for more research. The term 'two-way linkage' here refers to the fact that that any transition of hardware and software takes place both from home to host and from host to home markets. This research did not find highly significant findings in the analysis of two-way linkages between the two regions. One-way transit of goods and practices from home markets to host markets is the typical strategy for transnational retailers, but the it is rare to find evidence of a transfer of improved knowledge from host markets (such as Taiwan) back to the multinational firm's home country (such as the US is for Costco). Assessing the extent to which a home country is impacted by practices gained from foreign host countries is an important and interesting topic for future research into retail globalization. For example, have retail multinationals gained new ideas in host countries regarding store formats or site decisions that they have implemented in their home countries? Additionally, are there any products found in host countries that have been successfully introduced into multinational firm home countries? If these things have not happened as of yet, is it possible that we might see these kinds of 'reverse innovation flows' in the years ahead? These kinds of questions are rarely discussed in the literature; consequently, analysis of these two-way linkages would be a promising avenue for further research. If three dimensional networks (with vertical and horizontal connections) of the GPN framework can be integrated with

such two-way transition, the operation's power and value can be enhanced and increased in both home and host markets.

Finally, the comparative analysis should be extended to a broader scope. This research assessed localization strategies only between a retailer's headquarters in its home country (*i.e.*, Costco US) and a retailer's subsidiary in one host country (*i.e.*, Costco Taiwan) at a specific time (*i.e.*, 2010). The analysis should be extended to a comparison between same brand subsidiaries in different markets (*e.g.*, Costco Taiwan, Costco Japan, and Costco Canada), between different brand subsidiaries in the same markets (*e.g.*, Costco Taiwan, Carrefour Taiwan, and Tesco Taiwan), and between different times or over a longer time period (*e.g.*, 2000 to 2010). The extended assessment would provide a more comprehensive idea of a transnational retailer's localization strategies.

In conclusion, retailing is a more nationally-specific activity than other sectors of the economy, and this case study has attempted to assess the issue of localization versus standardization of transnational retailers' global expansion strategies through a geographic approach. More generally, this research argued that a strategy opting for a lower degree of localization would be feasible and possible for transnational corporations' globalized activities, if transnational corporations could take the right remedial steps to correct for inevitable barriers and challenges. This research suggests that economic geographers should explore further studies of the transnational retail dynamics of globalization. Therefore, the Global Production Network framework for service-sector activities must be developed through further exploration of areas that still constitute gaps within the model: the complexities of consumer cultures, institutional conditions, and business organization systems present in other countries.

This research has attempted to address the debate over whether an extreme localization strategy is required of transnational retailers in their globalization activities. In the environment of quickly advancing globalization, undoubtedly, achieving the balance

between localization and standardization in new markets is a very complicated but important task, and this research has achieved a small step in the broader study of the geography of the globalization of transnational cooperation in addressing that issue via the analysis of a case study. However, the global economy is dynamic. Uncertainty in dynamic markets is always the major challenge for transnational corporations. The understanding of this uncertainty and challenge cannot be completely resolved by one case study. Hence, in further research, focusing on the issue of achieving the balance between localization and standardization will be conducive to the development of successful projects for the next expansion targets wherever the new potential markets emerge.

APPENDIX A

THE PRODUCTION MIX ANALYSIS FROM THE PRODUCT LINE BETWEEN US AND TAIWAN

			US		TW	
			f	%	f	%
Appliances	Large Appliances	Domestic	9	90.00%	9	47.37%
		Imported	1	10.00%	10	52.63%
		Costco	0	0.00%	0	0.00%
	Small Appliances	Domestic	18	90.00%	5	33.33%
		Imported	2	10.00%	10	66.67%
		Costco	0	0.00%	0	0.00%
	Kitchen Appliances	Domestic	21	95.45%	5	21.74%
		Imported	1	4.55%	18	78.26%
		Costco	0	0.00%	0	0.00%
	Other Appliances	Domestic	15	100.00%	1	4.55%
		Imported	0	0.00%	21	95.45%
		Costco	0	0.00%	0	0.00%
Computer & Electronics	Computer	Domestic	12	63.16%	10	47.62%
		Imported	7	36.84%	11	52.38%
		Costco	0	0.00%	0	0.00%
	Electronics	Domestic	19	65.52%	24	17.39%
		Imported	10	34.48%	114	82.61%
		Costco	0	0.00%	0	0.00%
Dry Food & Sundries	Can	Domestic	79	84.04%	10	24.39%
		Imported	6	6.38%	28	68.29%
		Costco	9	9.57%	3	7.32%
	Cereal	Domestic	14	73.68%	1	5.00%
		Imported	0	0.00%	16	80.00%
		Costco	5	26.32%	3	15.00%
	Coffee	Domestic	9	56.25%	2	8.70%
		Imported	2	12.50%	15	65.22%
		Costco	5	31.25%	6	26.09%
	Drink & Juice	Domestic	70	73.68%	20	24.10%
		Imported	7	7.37%	57	68.67%
		Costco	18	18.95%	6	7.23%
	Oil	Domestic	4	33.33%	4	28.57%
		Imported	1	8.33%	6	42.86%
		Costco	7	58.33%	4	28.57%
	Pat Suppliers	Domestic	8	53.33%	0	0.00%
		Imported	0	0.00%	18	72.00%
		Costco	7	46.67%	7	28.00%
Rice & Noodles	Domestic	4	44.44%	15	45.45%	
	Imported	5	55.56%	18	54.55%	
	Costco	0	0.00%	0	0.00%	
Sauce & Seasoning	Domestic	44	66.67%	16	19.51%	
	Imported	3	4.55%	57	69.51%	
	Costco	19	28.79%	9	10.98%	
Sundry	Domestic	27	81.82%	9	90.00%	
	Imported	2	6.06%	1	10.00%	
	Costco	4	12.12%	0	0.00%	
Fresh Food	Bread	Domestic	30	66.67%	14	23.73%
		Imported	2	4.44%	25	42.37%
		Costco	13	28.89%	20	33.90%

	Fruit &Vegetable	Domestic	42	68.85%	41	67.21%
		Imported	19	31.15%	20	32.79%
		Costco	0	0.00%	0	0.00%
	Meat	Domestic	19	35.85%	0	0.00%
		Imported	0	0.00%	7	31.82%
		Costco	34	64.15%	15	68.18%
	Sea Food	Domestic	0	0.00%	11	52.38%
		Imported	0	0.00%	6	28.57%
		Costco	14	100.00%	4	19.05%
	Deli	Domestic	0	0.00%	20	76.92%
		Imported	0	0.00%	0	0.00%
		Costco	11	100.00%	6	23.08%
Frozen & Chilled Food	Cheese	Domestic	4	17.39%	2	5.88%
		Imported	16	69.57%	32	94.12%
		Costco	3	13.04%	0	0.00%
	Chill Food	Domestic	98	84.48%	42	53.16%
		Imported	6	5.17%	25	31.65%
		Costco	12	10.34%	12	15.19%
	Dairy	Domestic	27	57.45%	15	50.00%
Imported		0	0.00%	4	13.33%	
Costco		20	42.55%	11	36.67%	
Dessert	Domestic	8	88.89%	1	7.69%	
	Imported	0	0.00%	9	69.23%	
	Costco	1	11.11%	3	23.08%	
Meat & Sausage	Domestic	19	34.55%	16	88.89%	
	Imported	1	1.82%	1	5.56%	
	Costco	35	63.64%	1	5.56%	
Seafood	Domestic	15	65.22%	7	36.84%	
	Imported	0	0.00%	3	15.79%	
	Costco	8	34.78%	9	47.37%	
Vegetable	Domestic	10	62.50%	0	0.00%	
	Imported	1	6.25%	4	66.67%	
	Costco	5	31.25%	2	33.33%	
Hardware & Furniture	Car Supply	Domestic	16	84.21%	4	16.67%
		Imported	3	15.79%	20	83.33%
		Costco	0	0.00%	0	0.00%
	Furniture	Domestic	22	95.65%	4	26.67%
		Imported	1	4.35%	11	73.33%
		Costco	0	0.00%	0	0.00%
Hardware	Domestic	25	80.65%	7	36.84%	
	Imported	6	19.35%	12	63.16%	
	Costco	0	0.00%	0	0.00%	
Illumination	Domestic	9	100.00%	0	0.00%	
	Imported	0	0.00%	14	100.00%	
	Costco	0	0.00%	0	0.00%	
Office supplies	Domestic	60	73.17%	63	56.76%	
	Imported	19	23.17%	48	43.24%	
	Costco	3	3.66%	0	0.00%	
Other	Domestic	22	73.33%	4	18.18%	
	Imported	6	20.00%	16	72.73%	

		Costco	2	6.67%	2	9.09%
Health & Beauty Aids	Bath Supply	Domestic	70	89.74%	10	14.49%
		Imported	3	3.85%	59	85.51%
		Costco	5	6.41%	0	0.00%
	Beauty Supply	Domestic	12	100.00%	2	11.76%
		Imported	0	0.00%	15	88.24%
		Costco	0	0.00%	0	0.00%
	Health	Domestic	12	66.67%	8	100.00%
		Imported	0	0.00%	0	0.00%
		Costco	6	33.33%	0	0.00%
	Vitamin	Domestic	75	78.95%	8	27.59%
		Imported	0	0.00%	16	55.17%
		Costco	20	21.05%	5	17.24%
House ware	Bad supply	Domestic	52	98.11%	8	16.00%
		Imported	0	0.00%	39	78.00%
		Costco	1	1.89%	3	6.00%
	Cleaner	Domestic	30	71.43%	13	13.98%
		Imported	1	2.38%	71	76.34%
		Costco	11	26.19%	9	9.68%
	Cookware	Domestic	24	88.89%	5	11.63%
		Imported	2	7.41%	37	86.05%
		Costco	1	3.70%	1	2.33%
	Kitchen supply	Domestic	41	75.93%	12	29.27%
		Imported	1	1.85%	23	56.10%
		Costco	12	22.22%	6	14.63%
	Tissue	Domestic	13	76.47%	N/A	N/A
		Imported	0	0.00%	N/A	N/A
		Costco	4	23.53%	N/A	N/A
Outdoor, Garden & Sporting	Garden	Domestic	39	100.00%	N/A	N/A
		Imported	0	0.00%	N/A	N/A
		Costco	0	0.00%	N/A	N/A
	Outdoor	Domestic	33	89.19%	1	11.11%
		Imported	4	10.81%	8	88.89%
		Costco	0	0.00%	0	0.00%
	Sporting	Domestic	20	100.00%	13	30.95%
		Imported	0	0.00%	29	69.05%
		Costco	0	0.00%	0	0.00%
	Toy	Domestic	3	100.00%	25	45.45%
		Imported	0	0.00%	30	54.55%
		Costco	0	0.00%	0	0.00%
Snacks & Candy	Candy	Domestic	61	83.56%	12	48.00%
		Imported	0	0.00%	11	44.00%
		Costco	12	16.44%	2	8.00%
	Chocolate	Domestic	49	84.48%	0	0.00%
		Imported	0	0.00%	18	85.71%
		Costco	9	15.52%	3	14.29%
	Snacks	Domestic	29	85.29%	10	12.66%
		Imported	3	8.82%	50	63.29%
		Costco	2	5.88%	19	24.05%

APPENDIX B

THE GEOGRAPHIC ANALYSIS FROM THE PRODUCT LINE BETWEEN U.S AND TAIWAN

			US		TW	
			f	%	f	%
Appliances	Large Appliances	NA	10	100.00%	11	57.89%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	8	42.11%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Small Appliances	NA	15	75.00%	9	64.29%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	3	21.43%
		EU	5	25.00%	2	14.29%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Kitchen Appliances	NA	22	100.00%	0	0.00%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	11	61.11%
		EU	0	0.00%	7	38.89%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Other Appliances	NA	12	80.00%	8	36.36%
		SA	0	0.00%	0	0.00%
EA		0	0.00%	4	18.18%	
EU		3	20.00%	10	45.45%	
OC		0	0.00%	0	0.00%	
Other		0	0.00%	0	0.00%	
Computer & Electronics	Computer	NA	13	68.42%	11	52.38%
		SA	0	0.00%	0	0.00%
		EA	6	31.58%	10	47.62%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Electronics	NA	19	65.52%	37	27.21%
		SA	0	0.00%	0	0.00%
		EA	9	31.03%	80	58.82%
		EU	1	3.45%	19	13.97%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
Dry Food & Sundries	Can	NA	83	89.25%	16	39.02%
		SA	2	2.15%	0	0.00%
		EA	6	6.45%	22	53.66%
		EU	1	1.08%	3	7.32%
		OC	0	0.00%	0	0.00%
		Other	1	1.08%	0	0.00%
	Cereal	NA	19	100.00%	18	81.82%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	4	18.18%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%

	Coffee	NA	12	85.71%	15	65.22%
		SA	2	14.29%	4	17.39%
		EA	0	0.00%	3	13.04%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	2	14.29%	1	4.35%
	Drink & Juice	NA	82	92.13%	37	44.58%
		SA	2	2.25%	0	0.00%
		EA	1	1.12%	30	36.14%
		EU	4	4.49%	4	4.82%
OC		0	0.00%	4	4.82%	
Other		0	0.00%	8	9.64%	
Oil	NA	6	50.00%	6	42.86%	
	SA	0	0.00%	1	7.14%	
	EA	0	0.00%	4	28.57%	
	EU	6	50.00%	2	14.29%	
	OC	0	0.00%	1	7.14%	
	Other	0	0.00%	0	0.00%	
Pat Suppliers	NA	15	100.00%	0	0.00%	
	SA	0	0.00%	24	96.00%	
	EA	0	0.00%	0	0.00%	
	EU	0	0.00%	0	0.00%	
	OC	0	0.00%	1	4.00%	
	Other	0	0.00%	0	0.00%	
Rice & Noodles	NA	4	44.44%	0	0.00%	
	SA	0	0.00%	0	0.00%	
	EA	3	33.33%	27	81.82%	
	EU	2	22.22%	6	18.18%	
	OC	0	0.00%	0	0.00%	
	Other	0	0.00%	0	0.00%	
Sauce & Seasoning	NA	65	97.01%	49	73.13%	
	SA	0	0.00%	1	1.49%	
	EA	1	1.49%	31	46.27%	
	EU	1	1.49%	1	1.49%	
	OC	0	0.00%	0	0.00%	
	Other	0	0.00%	0	0.00%	
Sundry	NA	29	90.63%	0	0.00%	
	SA	0	0.00%	1	10.00%	
	EA	0	0.00%	9	90.00%	
	EU	3	9.38%	0	0.00%	
	OC	0	0.00%	0	0.00%	
	Other	0	0.00%	0	0.00%	
Fresh Food	Bread	NA	45	97.83%	2	5.56%
		SA	0	0.00%	0	0.00%
EA		0	0.00%	34	94.44%	
EU		0	0.00%	0	0.00%	
OC		0	0.00%	0	0.00%	
Other		0	0.00%	0	0.00%	
	Fruit & Vegetable	NA	11	100.00%	12	19.67%
		SA	0	0.00%	0	0.00%

		EA	0	0.00%	48	78.69%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	1	1.64%
		Other	0	0.00%	0	0.00%
	Meat	NA	50	84.75%	17	77.27%
		SA	7	11.86%	0	0.00%
		EA	2	3.39%	0	0.00%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	5	22.73%
		Other	0	0.00%	0	0.00%
	Sea Food	NA	7	50.00%	6	28.57%
		SA	4	28.57%	0	0.00%
		EA	2	14.29%	14	66.67%
		EU	1	7.14%	1	4.76%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Deli	NA	11	100.00%	6	23.08%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	20	76.92%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
Frozen & Chilled Food	Cheese	NA	4	17.39%	7	20.59%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	3	8.82%
		EU	19	82.61%	24	70.59%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Chill Food	NA	106	95.50%	26	32.91%
		SA	0	0.00%	0	0.00%
		EA	2	1.80%	51	64.56%
		EU	3	2.70%	0	0.00%
		OC	0	0.00%	2	2.53%
		Other	0	0.00%	0	0.00%
	Dairy	NA	47	100.00%	12	40.00%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	17	56.67%
		EU	0	0.00%	1	3.33%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Dessert	NA	9	100.00%	5	38.46%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	5	38.46%
		EU	0	0.00%	2	15.38%
		OC	0	0.00%	1	7.69%
		Other	0	0.00%	0	0.00%
Meat & Sausage	NA	36	100.00%	3	16.67%	
	SA	0	0.00%	0	0.00%	
	EA	0	0.00%	15	83.33%	
	EU	0	0.00%	0	0.00%	

		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Seafood	NA	21	91.30%	2	10.53%
		SA	1	4.35%	1	5.26%
		EA	1	4.35%	15	78.95%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	1	5.26%
	Vegetable	NA	16	100.00%	5	83.33%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	1	16.67%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
Hardware & Furniture	Car Supply	NA	18	94.74%	0	0.00%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	20	100.00%
		EU	1	5.26%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Furniture	NA	23	100.00%	11	73.33%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	4	26.67%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Hardware	NA	27	87.10%	10	52.63%
		SA	0	0.00%	0	0.00%
		EA	4	12.90%	8	42.11%
		EU	0	0.00%	1	5.26%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Illumination	NA	9	100.00%	1	7.14%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	12	85.71%
		EU	0	0.00%	1	7.14%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Office Supplies	NA	65	79.27%	40	36.70%
		SA	0	0.00%	0	0.00%
		EA	17	20.73%	64	58.72%
		EU	0	0.00%	5	4.59%
OC		0	0.00%	0	0.00%	
Other		0	0.00%	0	0.00%	
Other	NA	31	100.00%	13	59.09%	
	SA	0	0.00%	0	0.00%	
	EA	0	0.00%	7	31.82%	
	EU	0	0.00%	2	9.09%	
	OC	0	0.00%	0	0.00%	
	Other	0	0.00%	0	0.00%	

Health & Beauty Aids	Bath Supply	NA	74	94.87%	36	53.73%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	18	26.87%
		EU	4	5.13%	12	17.91%
		OC	0	0.00%	1	1.49%
		Other	0	0.00%	0	0.00%
	Beauty Supply	NA	12	100.00%	14	82.35%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	3	17.65%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Health	NA	18	100.00%	5	62.50%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	3	37.50%
		EU	0	0.00%	0	0.00%
OC		0	0.00%	0	0.00%	
Other		0	0.00%	0	0.00%	
Vitamin	NA	93	97.89%	18	62.07%	
	SA	0	0.00%	0	0.00%	
	EA	0	0.00%	9	31.03%	
	EU	2	2.11%	1	3.45%	
	OC	0	0.00%	1	3.45%	
	Other	0	0.00%	0	0.00%	
House ware	Bad Supply	NA	53	100.00%	34	68.00%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	15	30.00%
		EU	0	0.00%	1	2.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Cleaner	NA	40	97.56%	71	76.34%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	22	23.66%
		EU	0	0.00%	0	0.00%
		OC	1	2.44%	0	0.00%
		Other	0	0.00%	0	0.00%
	Cookware	NA	20	100.00%	17	39.53%
		SA	0	0.00%	0	0.00%
		EA	4	20.00%	5	11.63%
		EU	3	15.00%	21	48.84%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
Kitchen Supply	NA	54	100.00%	28	100.00%	
	SA	0	0.00%	0	0.00%	
	EA	0	0.00%	13	46.43%	
	EU	0	0.00%	0	0.00%	
	OC	0	0.00%	0	0.00%	
	Other	0	0.00%	0	0.00%	
Tissue	NA	17	100.00%	N/A	N/A	
	SA	0	0.00%	N/A	N/A	
	EA	0	0.00%	N/A	N/A	

		EU	0	0.00%	N/A	N/A
		OC	0	0.00%	N/A	N/A
		Other	0	0.00%	N/A	N/A
Outdoor, Garden & Sporting	Garden	NA	37	94.87%	N/A	N/A
		SA	0	0.00%	N/A	N/A
		EA	0	0.00%	N/A	N/A
		EU	0	0.00%	N/A	N/A
		OC	0	0.00%	N/A	N/A
		Other	2	5.13%	N/A	N/A
	Outdoor	NA	35	94.59%	6	66.67%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	3	33.33%
		EU	2	5.41%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Sporting	NA	20	100.00%	29	69.05%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	13	30.95%
		EU	0	0.00%	0	0.00%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Toy	NA	3	100.00%	25	45.45%
		SA	0	0.00%	0	0.00%
EA		0	0.00%	30	54.55%	
EU		0	0.00%	0	0.00%	
OC		0	0.00%	0	0.00%	
Other		0	0.00%	0	0.00%	
Snacks & Candy	Candy	NA	68	97.14%	12	48.00%
		SA	0	0.00%	0	0.00%
		EA	1	1.43%	12	48.00%
		EU	1	1.43%	0	0.00%
		OC	0	0.00%	1	4.00%
		Other	0	0.00%	0	0.00%
	Chocolate	NA	58	100.00%	8	38.10%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	4	19.05%
		EU	0	0.00%	9	42.86%
		OC	0	0.00%	0	0.00%
		Other	0	0.00%	0	0.00%
	Snacks	NA	33	97.06%	50	63.29%
		SA	0	0.00%	0	0.00%
		EA	0	0.00%	23	29.11%
EU		1	2.94%	2	2.53%	
OC		0	0.00%	4	5.06%	
Other		0	0.00%	0	0.00%	

APPENDIX C

SUPPLIER SOURCING ANALYSIS FROM THE PRODUCT LINE BETWEEN US AND TAIWAN

		US			TW	
			f	%	f	%
Appliances	Big Appliances	Domestic	9	90.00%	19	100.00%
		Foreign	0	0.00%	0	0.00%
		Costco	1	10.00%	0	0.00%
	Small Appliances	Domestic	18	90.00%	17	89.47%
		Foreign	2	10.00%	5	26.32%
		Costco	0	0.00%	0	0.00%
	Kitchen Appliances	Domestic	22	100.00%	13	68.42%
		Foreign	0	0.00%	10	52.63%
		Costco	0	0.00%	0	0.00%
	Other Appliances	Domestic	14	93.33%	7	36.84%
		Foreign	0	0.00%	8	42.11%
		Costco	1	6.67%	0	0.00%
Computer & Electronics	Computer	Domestic	19	100.00%	21	100.00%
		Foreign	0	0.00%	0	0.00%
		Costco	0	0.00%	0	0.00%
	Electronics	Domestic	28	96.55%	131	94.93%
		Foreign	1	3.45%	6	4.35%
		Costco	0	0.00%	1	0.72%
Dry Food & Sundries	Can	Domestic	82	87.23%	6	23.08%
		Foreign	3	3.19%	16	61.54%
		Costco	9	9.57%	5	19.23%
	Cereal	Domestic	14	73.68%	3	13.64%
		Foreign	0	0.00%	14	63.64%
		Costco	5	26.32%	5	22.73%
	Coffee	Domestic	10	62.50%	15	42.86%
		Foreign	1	6.25%	3	8.57%
		Costco	5	31.25%	17	48.57%
	Drink & Juice	Domestic	76	80.00%	50	60.24%
		Foreign	1	1.05%	18	21.69%
		Costco	18	18.95%	15	18.07%
	Oil	Domestic	5	41.67%	4	28.57%
		Foreign	0	0.00%	3	21.43%
		Costco	7	58.33%	7	50.00%
Pat Suppliers	Domestic	8	53.33%	7	28.00%	
	Foreign	0	0.00%	10	40.00%	
	Costco	7	46.67%	8	32.00%	
Rice & Noodles	Domestic	9	100.00%	15	45.45%	
	Foreign	0	0.00%	7	21.21%	
	Costco	0	0.00%	11	33.33%	
Sauce & Seasoning	Domestic	45	68.18%	13	16.67%	
	Foreign	2	3.03%	19	24.36%	
	Costco	19	28.79%	46	58.97%	
Sundry	Domestic	29	87.88%	2	100.00%	
	Foreign	0	0.00%	0	0.00%	
	Costco	4	12.12%	0	0.00%	
Fresh Food	Bread	Domestic	30	66.67%	14	23.73%
		Foreign	2	4.44%	2	3.39%
		Costco	13	28.89%	43	72.88%
	Fruit & Vegetable	Domestic	53	86.89%	2	3.28%
		Foreign	8	13.11%	0	0.00%
		Costco	0	0.00%	59	96.72%

	Meat	Domestic	17	33.33%	0	0.00%
		Foreign	0	0.00%	5	22.73%
		Costco	34	66.67%	17	77.27%
	Sea Food	Domestic	0	0.00%	12	57.14%
		Foreign	0	0.00%	0	0.00%
		Costco	14	100.00%	9	42.86%
Frozen & Chilled Food	Cheese	Domestic	9	37.50%	3	8.82%
		Foreign	12	50.00%	0	0.00%
		Costco	3	12.50%	31	91.18%
	Chill Food	Domestic	98	84.48%	47	59.49%
		Foreign	6	5.17%	20	25.32%
		Costco	12	10.34%	12	
	Dairy	Domestic	27	57.45%	16	53.33%
		Foreign	0	0.00%	3	10.00%
		Costco	20	42.55%	11	36.67%
	Dessert	Domestic	8	88.89%	1	7.69%
		Foreign	0	0.00%	11	84.62%
		Costco	1	11.11%	1	7.69%
Meat & Sausage	Domestic	19	54.29%	16	88.89%	
	Foreign	1	2.86%	1	5.56%	
	Costco	15	42.86%	1	5.56%	
Seafood	Domestic	13	56.52%	7	0.00%	
	Foreign	2	8.70%	3	0.00%	
	Costco	8	34.78%	9	0.00%	
Vegetable	Domestic	11	68.75%	0	0.00%	
	Foreign	0	0.00%	1	16.67%	
	Costco	5	31.25%	5	83.33%	
Hardware & Furniture	Car Supply	Domestic	16	84.21%	8	33.33%
		Foreign	3	15.79%	16	66.67%
		Costco	0	0.00%	0	0.00%
	Furniture	Domestic	19	82.61%	4	26.67%
		Foreign	4	17.39%	9	60.00%
		Costco	0	0.00%	2	13.33%
	Hardware	Domestic	26	83.87%	10	52.63%
Foreign		5	16.13%	7	36.84%	
Costco		0	0.00%	2	10.53%	
Illumination	Domestic	9	100.00%	14	100.00%	
	Foreign	0	0.00%	0	0.00%	
	Costco	0	0.00%	0	0.00%	
Office supplies	Domestic	19	86.36%	96	86.49%	
	Foreign	0	0.00%	11	9.91%	
	Costco	3	13.64%	4	3.60%	
Other	Domestic	24	77.42%	4	18.18%	
	Foreign	5	16.13%	16	72.73%	
	Costco	2	6.45%	2	9.09%	
Health & Beauty Aids	Bath Supply	Domestic	66	84.62%	26	37.68%
		Foreign	7	8.97%	39	56.52%
		Costco	5	6.41%	4	5.80%
	Beauty Supply	Domestic	6	50.00%	3	17.65%
		Foreign	0	0.00%	12	70.59%
		Costco	6	50.00%	2	11.76%
Health	Domestic	12	66.67%	8	0.00%	
	Foreign	0	0.00%	0	0.00%	

		Costco	6	33.33%	0	0.00%
	Vitamin	Domestic	75	77.32%	8	27.59%
		Foreign	0	0.00%	20	68.97%
		Costco	22	22.68%	1	3.45%
House ware	Bad Supply	Domestic	46	0.867925	13	26.00%
		Foreign	6	11.32%	1	2.00%
		Costco	1	1.89%	36	72.00%
	Cleaner	Domestic	30	71.43%	20	21.51%
		Foreign	1	2.38%	63	67.74%
		Costco	11	26.19%	10	10.75%
	Cookware	Domestic	20	74.07%	7	16.28%
		Foreign	6	22.22%	33	76.74%
		Costco	1	3.70%	3	6.98%
	Kitchen Supply	Domestic	41	75.93%	14	34.15%
		Foreign	1	1.85%	20	48.78%
		Costco	12	22.22%	7	17.07%
	Tissue	Domestic	12	44.44%	N/A	N/A
		Foreign	0	0.00%	N/A	N/A
		imported	15	55.56%	N/A	N/A
Outdoor, Garden & Sporting	Garden	Domestic	26	66.67%	N/A	N/A
		Foreign	13	33.33%	N/A	N/A
		Costco	0	0.00%	N/A	N/A
	Outdoor	Domestic	29	78.38%	1	11.11%
		Foreign	7	18.92%	4	44.44%
		Costco	1	2.70%	4	44.44%
	Sporting	Domestic	19	95.00%	20	47.62%
		Foreign	1	5.00%	13	30.95%
		Costco	0	0.00%	9	21.43%
	Toy	Domestic	3	100.00%	41	75.93%
		Foreign	0	0.00%	13	24.07%
		Costco	0	0.00%	0	0.00%
Snacks and Candy	Candy	Domestic	58	82.86%	12	48.00%
		Foreign	0	0.00%	2	8.00%
		Costco	12	17.14%	11	44.00%
	Chocolate	Domestic	49	84.48%	7	31.82%
		Foreign	0	0.00%	3	13.64%
		Costco	9	15.52%	12	54.55%
	Snacks	Domestic	32	94.12%	37	46.84%
		Foreign	0	0.00%	12	15.19%
		Costco	2	5.88%	30	37.97%

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