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Enhancing Economic Sustainability by Markdown Money Supply Contracts in the Fashion Industry: China *vs* U.S.A.

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Abstract: Supply chain contracts, such as the markdown money policy (MMP), are commonly adopted in the fashion industry. In this paper, we explore how fashion companies can use MMP to enhance economic sustainability from the cross-cultural perspective. We conduct case studies on two fashion firms (suppliers), one from China and one from U.S.A., that are adopting MMP in their respective supply chains. Via semi-structured interviews with staff members and some public data searching of the target companies, we find that the cultural factors, such as power distance and collectivism/individualism, affect contract selection, contract management, supplier–retailer leadership, and supplier–retailer relationship. We use the Hofstede's national cultural dimensions theory to explain our insights. Specifically, in China, a country with a relatively high degree of power distance and collectivism, the companies tend to care more about the group interest and loyalty. The Chinese fashion companies are more willing to play the leading role in managing the relationships with their retailers, and offer MMP to them. In the U.S.A., a country with a relatively low degree of power distance and individualism, the companies are more likely to emphasize their own interest in trading. In fact, we find that American fashion suppliers tend to bargain with their retailers, and they are less willing to proactively provide the markdown money as a sponsor. Finally, managerial implications are provided, and several future challenges on MMP are examined.

Keywords: markdown money policy; fashion industry; supply chain management; cross-cultural study

1. Introduction

In the fashion industry, products face a high level of demand uncertainty because of fast-changing consumer tastes [1] and other unpredictable market volatilities. Efficiency enhancement measures such as efficient consumer response policy for accommodating the fast-changing consumer demand are popularly launched and exercised in the fashion industry [2]. In addition, an effective supply chain contract among the various parties along the fashion supply chain is critical for long-term success and business sustainability of the supply chain members.

There are many types of supply chain contracts, such as the money markdown policy (MMP), the channel rebates contract, the quantity discount contract, the consumer rebates contract, the quantity flexibility contract, and the backup agreement, being adopted in the fashion industry [3]. Based on our industrial observations and survey in the fashion industry, MMP is particularly popular and commonly implemented [4]. More importantly, different from the return policy, MMP has no physical return [5]. The physical return in supply chains is obviously a less environmentally friendly practice.

MMP implies that the retail buyer (or retailer in short) pays a wholesale price to the supplier (e.g., brand owner) in procurement and receives a certain amount of money from the supplier for supporting markdown in the middle of the selling season. For example, suppose that the supplier sells a product to his buyer at a unit wholesale price of $100. When there is leftover at the buyer's place, a supplier who offers MMP will subsidize the buyer with some supportive money (e.g., $20) for each unit of the unsold product. This amount of supportive money is commonly called the markdown incentive or markdown money. This policy is quite similar to the returns/buyback policy reported in the literature [6–8], but it does not require the physical return of leftover products.

It is critical for fashion companies to improve their economic sustainability. To enhance economic sustainability, different fashion retailers might have different situations in markdowns. Hausman and Thorbeck [9] show that the fast fashion retailer Zara usually has 15% leftovers for 15% markdown, which is significantly lower than other kinds of fashion retailers such as traditional European apparel retailers (30%–40% leftovers and 30% markdown), traditional U.S.A. apparel retailers (50%–60% leftovers and 40% markdown) and U.S.A. department stores (60%–70% leftovers and 40% markdown). Observe that customers can get benefits from markdown as the retail selling price is reduced. However, it is unclear under which conditions the supplier would be more/less willing to pay for this markdown. From the supply chain perspective, fashion brands such as Tommy Hilfiger in U.S.A. and Cocoon and Livex in China all adopt MMP to deal with their retailers and provide the markdown money as the supportive money for the retail markdowns. A report from Women Wear Daily shows that MMP is adopted by all major fashion department stores in New York City [10]. For example, Tommy Hilfiger is being asked to provide markdown money in the trade with department stores such as Macy's and JC Penney. If the brand refuses, the department stores will order less than their original order [4].

There are several benefits to adopting MMP in the fashion supply chain from an economic sustainability perspective. First, from the theoretical perspective, MMP enables risk and reward sharing between the supplier and the buyer [11]. Adopting MMP in the supply chain can hence enhance the supply chain's performance by dampening the double marginalization effect [12]. In addition, from the practical perspective, implementing MMP intuitively can build the buyer's confidence of price reduction in sales season; in return, the buyer would be encouraged to order a larger quantity before the selling season starts.

The strategy of markdown pricing from the retailer perspective has attracted considerable attention in the supply chain management literature in recent years (e.g., [13–16]). Although MMP is popularly examined in the theoretical supply chain analysis, its adoption and implication in specific industrial context are under-studied. Thus, unlike aforementioned related studies, in this paper, we focus on examining how suppliers (one from U.S.A and one from China) adopt MMP and the respective implications. We argue that the American fashion company represents the "Western culture", while the Chinese fashion company represents the "Eastern culture". A comparison between American and Chinese companies enable us to clarify the cultural differences between the West and East, and the related cross-cultural challenges when the fashion companies run their business for enhancing economic sustainability. Observe that the cross-cultural study in the literature of supply chain management has been examined in different contexts [17–19], but little has been done in the context of contract implementation. We use Hofstede's national cultural dimensions theory to explain the results of cross-cultural differences between U.S.A. and China.

This paper is novel because supply chain contracting is practically important in supply chain management and MMP is very commonly adopted in the fashion industry compared to other supply chain contracts. To the best of our knowledge, empirical works on supply chain contracting are rare and there is no specific empirical study focusing on the implementation of MMP in the fashion industry from the cross-cultural perspective. As a result, this paper contributes to the literature by being a pioneering exploratory paper which aims to explore the reasons and critical factors of the implementation of MMP for economic sustainability and cross-cultural challenges in the fashion industry. The research questions are listed as follows.

(1) What strategies do the fashion firms take for enhancing economic sustainability when they adopt MMP in their business?
(2) How does cross-cultural perspectives affect MMP implementation for enhancing economic sustainability?
(3) What are the managerial implications and insights based on a cross-cultural analysis between the East and the West?
(4) What are the main challenges and future research directions for supply chain contracting in the fashion industry?

2. Literature Review

As a popular supply chain contract, MMP has a rich tradition in the fashion industry [4,20]. In the existing literature, most MMP related studies focus on the optimal markdown strategy with a dynamic pricing scheme during the selling season, in which the markdown pricing depends on the inventory level and market demand forecasting (e.g., [13–15]). However, it is important to study MMP from the supply chain perspective. Wang and Webster [21] utilize the fashion apparel industry as the background and investigate two forms of MMP: One form is called the quantity markdown money (QMM), in which the manufacturer pays a rebate credit to the retailer for each unsold unit at the end of the regular selling season; the other form is called the percent markdown money (PMM), in which the markdown money paid to the retailer is a certain percentage of the retail price markdown (*i.e.*, the difference between the regular selling price and clearance price). They show that both the QMM contract and the PMM contract can coordinate the supply chain and reduce the risk of overstocking. In addition, the authors prove that if the end of season clearance price is known at the start of the season when the contract terms are set, then the PMM and QMM contracts are identical.

In supply chain contracting, MMP and return policy (for end of season unsold products) are similar. They both help retailers to reduce overstocking risk. If we consider the case when the prices to the consumer market are endogenous in the supply chain and the leftover value is assumed to be zero, the physical cost of handling returns incurred in return policy becomes the only difference between MMP and return policy. The physical return incurs heavy pressure on transportation and product disposal, which would lead to extra carbon emission and pollution [5]. As a result, the return policy is less sustainable compared with MMP. Tsay [22] shows several MMP case studies in the fashion industry and compares the supply chain performance of MMP with the return policy. He finds that the physical costs of handling returns and relative advantages in liquidating unsold inventory can make return policy unattractive. Thus MMP becomes a preferable choice to the supplier. This is an important reference to show the advantages of MMP in the fashion industry. Hausman and Thorbeck [9] study the benefits of MMP on fast fashion operations. They present a financial model to evaluate the profitability impact on markdowns, and they find that MMP can lead to a significant percentage increase in profits for each supply chain party.

Due to no physical return, MMP provides a more sustainable situation in supply chain from the environmental perspective compared with the return policy. It is important to examine how MMP enhances economic sustainability. Lee and Rhee [23] examine a guaranteed profit margin scheme (GPM) with MMP for the coordination of a fashion apparel supply chain with one supplier and one retailer. They find that the retailer's optimal quantity decisions will result in profit maximization for the entire supply chain system. Hence, the supply chain becomes fully coordinated and creates a win-win outcome for both the retailer and the supplier. Note that GPM with MMP is quite popular in the fashion industry. For example, American fashion brand LC trade with the department store JC Penney using GPM with MMP (more details of GPM with MMP are discussed in Section 3.2). In addition to GPM with MMP, MMP is also popularly coupled with other supply chain contracts such as the return policy. For example, Chinese fashion brand Livex trade with their franchising retailers by return policy with MMP (more details of the return policy with MMP are discussed in Section 3.3). Krishnan *et al.* [24] study the return policy with unilateral markdown money in supply chains when considering the scenario in which promotion sales effort can affect the market demand. They analytically prove that, under such scheme, the supplier is never worse off than without offering the markdown money.

Recently, other factors such as lead time, risk issue, minimum profit share ratio and carbon emission have been incorporated into the investigation of MMP adoption in supply chains. For instance, Xiao and Jin [25] investigate the effects of the lead time on the coordination mechanism of MMP for a fashion apparel supply chain and find that, when the lead time increases, the supplier will charge the retailer a lower unit wholesale price to stimulate the order quantity and give a lower markdown allowance to limit the amount of excessive orders if the basic demand uncertainty is sufficiently large. Shen *et al.* [12] examine MMP in the fashion supply chain with a downstream risk-neutral retailer and an upstream risk-averse supplier by a mean-variance approach. They develop interesting insights related to the profit's coefficient of variation in the supply chain as the performance indicator. Further, Choi [26] examines MMP in the fashion supply chain with the risk-averse retailer under a multi-period fashion supply chain. He shows that when the retailer is risk-averse, the optimal order quantity also increases with markdown price. Chow *et al.* [27] conduct the behavioral experiments to examine the use of MMP by considering the "minimum profit share ratio", which can partially reflect people's self-serving fairness.

Environmental issues are important in the fashion industry [28–30]. MMP also has an impact on green supply chain management. For example, Choi [31] investigates how the carbon footprint tax affects the supply chain agents in making their sourcing decision with MMP. He indicates that for the supply chain with the properly set carbon footprint tax, sourcing locally is always a wiser choice for the supply chain members.

As examined above, the current literature has theoretically examined MMP by an analytical approach. However, it is rare to find studies that focus on the real world implementation of MMP by an empirical approach. In this paper, we focus on exploring empirically how MMP is employed in real fashion companies, and its features and other implementation issues.

As a remark, it is known that company decisions and the overall management strategy related to supply chain contracting are affected by the national culture [32]. Hofstede's national cultural dimensions theory is well-established to explain the cultural problem, and its four cultural dimensions (*i.e.*, power distance, individualism/collectivism, masculinity/femininity, and uncertainty avoidance) describe the effects of a national culture on the values of its members' behavior [33]. Taking U.S.A. and China as examples, U.S.A. culture has a lower score than China in power distance dimension (40 in U.S.A. *vs.* 80 in China), but much higher than China in individualism (91 in U.S.A. *vs.* 20 in China) (Figure 1) (In this paper, we focus on discussing power distance and individualism/collectivism as these two dimensions are more relevant to our case study results). Owing to the presence of "national culture", Eastern and Western companies should exhibit differences in terms of decision making. Thus, in supply chain contracting, national culture should yield supply chain contracts which are structured differently between the East and the West [34]. To be specific, for Chinese suppliers, the normal mode of operations is usually trust based (*i.e.*, "*guanxi*", which means relationship), while, in contrast, the Western firms would prefer to operate more on formal "black and white" contracts [35]. In the existing literature, however, the effect of national culture on supply chain contract adoption is under-studied. To fill the research gap, in this research, we conduct case studies to investigate how the channel parties (that have distinctive national cultures) employ supply chain contracts in the form of MMP, in supply chains from the fashion companies in U.S.A. and China, respectively.

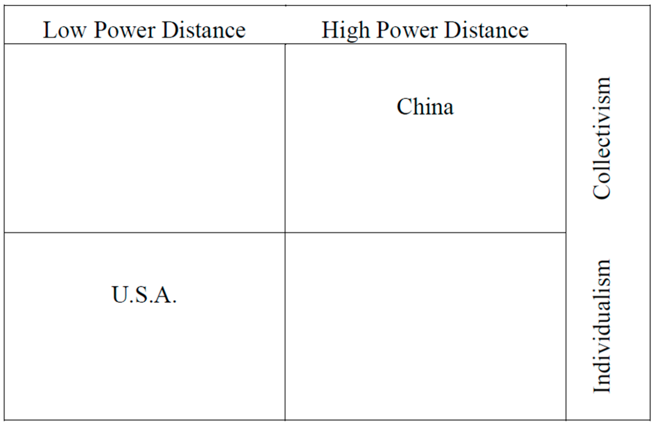

Figure 1. Power distance and individualism/collectivism in China and U.S.A.

3. Cases Study

3.1. Methodology

Case study is a well-established research method in management and business studies. Case study consists of detailed investigations (from one or more organizations, or groups within organizations), and data collection. The aim is to provide an analysis to reveal insights on the context and processes involved in the phenomenon under study [36]. A case study in supply chain contracting offers the opportunity to study a phenomenon in its own natural setting where complex links and underlying meanings can be explored [37].

In this paper, we use the case study approach to examine the implementation of supply chain contracts in the fashion industry. We collected the data from fashion companies in Mainland China and U.S.A., where MMP is commonly adopted. The reasons explaining why we focus on the fashion industry include: (1) MMP is known to exist in the fashion industry and is rather common; (2) a single industry eliminates noise from the feature of product; and (3) the fashion industry is a typical consumer-driven industry with product demands (e.g., fibers, yarns, and garments) being determined mostly by the demands of the final consumers. MMP is hence strategically important. As a remark, we selected samples from U.S.A. and China because both countries are play important and influential roles in global textile and clothing trading. Conducting a cross-cultural study between China and U.S.A is hence significant in the context of the fashion industry. Since the aim of this paper's case study is on generating in-depth contextual information of supply chain contracts adoption from the cross-cultural perspective, the use of a case study research strategy is considered suitable in this chapter.

The case studies reported in this paper were developed primarily based on in-depth individual interviews. The two companies, one from China and one from USA, were in a similar position of their corresponding market in terms of their market size and role (*i.e.*, supplier) in the fashion supply chain. To be specific, the interviews were conducted with the former executive manager of LC (for confidentiality issue, LC and LX are fictitious names for real fashion companies (please see Sections 3.2 and 3.3 for more details)) in U.S.A. and the general manager of LX in China. As a cross-cultural study between U.S.A. and China, the interview protocol of MMP implementation was first designed in English and then translated into Chinese. The interview protocol is shown in the Appendix. To ensure the accuracy of translation, an independent researcher was invited to help with translation. The interview protocol was structured by asking open-ended questions. The interviewees were able to fully express their views. In order to allow proper analysis and discussion, the interviews were all recorded and transcribed, interpreted, coded and displayed [36].

Notice that in this paper, we collected data not only through face-to-face semi-structured interviews with staff members from the investigated firms, but also using publicly available news and data from the company's website and annual reports. Notice that the materials from these multiple sources were used for triangulation purpose, which helped enhance the reliability of the findings (compared to a case analysis that solely relies on one single source of information, such as interviews, which could be biased) [36].

With the case study method defined, the case findings on the implementation of MMP in the fashion companies of U.S.A. and China are presented in the following section. In order to explore the impact of national culture on MMP applications in the supply chain, it is significant to study the implementation of MMP in fashion companies in U.S.A. and China. The managerial insights for both local and global business in the fashion industry are also delivered.

3.2. Case 1—LC

3.2.1. Company Overview

Founded in 1976, LC is a fashion company in New York City. LC designs a wide range of women's and men's apparel, accessories and fragrance products. LC was also the first brand to insist that its product collections must be placed together on the same floor, instead of being placed in "separate clothing categories". This retail format has changed consumer buying habits because shoppers no longer need to move from, e.g., the shirt department to the pants department in order to coordinate an outfit. They are able to mix and match pieces from LC's collection to create an entire outfit. This measure revolutionizes the way department stores arrange their clothing for sale and create the role of fashion merchandising. As a famous brand, major department stores such as JC Penney and Macy's are LC's retail partners.

3.2.2. Implementation of MMP

LC trades with its retailers using GPM with MMP. Specifically, if the retailers do not reach their expected profit margins, the goods would either fail to catch on with consumers or sell at deeply discounted prices, and then the retailers would ask LC to make up the difference on a line that does not sell at full price [4,38]. The former executive manager in LC pointed out that:

> *"We designed a new plan from the retailer every six months, which can vary from season to season, but only slightly. However, JC Penney required us to guarantee a margin by the end of the season. They may tell us at the beginning of the season that they wanted our product to net a 55% margin. So however we got there, either by markdown money or great sell through, it does not matter."*

Markdown money is frequently asked by the fashion retailers such as department stores in U.S.A. [39], which was no exception in LC case. Large department stores including JC Penney and Macy's have a kind of minimum profit threshold, below which they would use their retail bargaining power and threaten not to place orders for the upcoming season [4,40]. However, the suppliers accuse the retailers of marking down items more aggressively than necessary and refuse to share their burden of lost margins. The costs of markdowns actually impose a heavy financial burden on LC. A statement from Robert Zane, Chairman of the U.S.A. Association of Importers of Textile & Apparel and former sourcing executive in LC, is listed below:

> *"Willingly or unwillingly, we happily trade time for comfort. The most expensive elements of a slow time to market do not even appear on the cost sheets: the costs of markdowns" [41].*

Interestingly, the former executive manager in LC also mentions that, in the past, the supplier did not provide the markdown money. The merchandisers were given a bonus based on what they "sell in"(sell-in deals with what was sold to the retailer in the supply chain). Therefore, their sales executives would sell as much product to the retailers as they could, without worrying the leftover at the end of the season, and they thought it is "not their problem", until the retailers began asking for markdown money in recent years. Once the retailers started to ask for markdown money, the supplier found "sell in" difficult. Then, more and more companies, including LC, were adopting a "sell through"(sell-through deals with what the retailer interacting with the final customer was able to sold) scheme where the supplier is not responsible for "sell in", but "sell through". This implies that the retailer would report back to the supplier the sell through for the product and the sales person would get a bonus based on an actual sell-through percentage. Suppliers started to care about the retail leftover because of MMP. The former executive manager in LC said that:

> *"We know what we have to achieve at the beginning of the season, so we can plan our product and the recommended quantity buys accordingly. We work closer and our relationship is more like a team. But still when the product sells and the retailer are making money, they love us! If our product does not sell, then there is not that much love."*

To a certain extent, MMP actually helps the supplier and the retailer to establish a better relationship in the American fashion supply chain. It is also known that the American philosophy proposes that each company aims at and focuses on maximizing its own interest during business cooperation. MMP is hence a contractual arrangement which facilitates this kind of self-interest driven supply chain game.

3.3. Case 2—LX

3.3.1. Company Overview

LX is a fashion company in China. LX produces fashion products such as T-shirts, sweaters, jackets, padded, snow suits, casual pants, and denim, and selling them to other retailers. Their retail clients are responsible for selling products to the end customers. LX was founded in 2001, and its headquarters is in Shanghai, China. In 2010, its sales volume exceeded 1.1 billion RMB with over 400 downstream retailers in China (source: from the LX company website).

3.3.2. Implementation of MMP

LX adopted MMP. Specifically, before the selling season, LX first announced the details in its contract and required the retailers to order a minimum order quantity (MOQ). The retailers then placed an order that must be equal to or above MOQ. In the middle of the selling season, by sharing the sales data, LX might offer the markdown money for supporting the retailers to mark down and helping them to reduce inventory. For a higher level of inventory, a higher amount of markdown money might be provided. At the end of the selling season, the leftovers would be bought back at the committed return price and shipped to LX. The leftovers would then be sold in LX's online store in Taobao (the biggest and most popular B2C online platform in China). The general manager in LX said that:

> *"We try to help our retailers to sell quickly and reduce the inventory. We give them some support such as providing markdown money and even allow them to return. Our online platform in Taobao operates well, in which we can sell the items returned by our retailers. However, the business is getting more and more difficult in China, and we are now facing heavy pressure on inventory. So our management board is thinking to reform our distribution channel. Maybe in the future, we just allow quantity-restricted returns or even do not allow any."*

LX had over 400 stores throughout China. The majority of retailers are large-scale retailers who also sell products from other fashion brands. When discussing how LX selected the retailers, the general manager said that:

> *"Our retailers are sometimes introduced by good and reliable friends. As such, we are more confident to have them. However, we still have very strict requirement when we select the retailers in the specified location or region. We require our retailers who have experience in fashion retailing and healthy cash flow."*

4. Case Insights Summary

In this section, we summarize insights of both LC and LX from case studies.

4.1. Summary of LC Case

For LC, providing the markdown money to its retailer (*i.e.*, JC Penney) is actually involuntary. In this two-echelon supply chain (e.g., LC is the supplier and JC Penney is the retailer), LC has a relatively smaller bargaining power. The markdown money is a kind of "push money" for LC to ensure the business can continue.

There are several insights based on the implementation of MMP in LC. First, economic situation affects the supply chain agents to make decision on contract adaptation. Markdowns and markdown money are significant in unfavorable economic situations for the retailer. Due to the financial tsunami in 2008, U.S.A. economy was weak and consumption in fashion was continuously dropping afterward. Retailers, such as department stores, faced huge pressure on cash flow management and inventory control. Markdown is a direct way to quickly reduce the inventory level and obtain a quicker cash inflow. To maintain the profit margin, retailers, such as department stores, asked the fashion brand to provide the markdown money to compensate for unsatisfied sales performance. And to ensure the business can be continuous, LC provided the markdown money to JC Penney.

Second, the cultural factors such as power distance and individualism can explain the behaviors of U.S.A. firms in supply chain contracting. This finding is also confirmed by Cai *et al.* [34] and Li *et al.* [35]. In U.S.A., the supply chain parties are more willing to bargain the contract terms in trading. This can be potentially explained by the power distance, which is relatively neutral in U.S.A. [42]. U.S.A. scored generally low on this dimension which implies that the American premise of "liberty and justice for all" [43]. After bargaining, as a less powerful party is in an unfavorable economic situation, the fashion brand (*i.e.*, supplier) has to promise GPM with the offering of MMP; while in return, it gets the long-term business partnership with the retailers. Moreover, U.S.A. firms insist on contractual arrangement to help manage supply chains because they believe that the formal contracts can protect their own interests, so that the partners would tend to focus on the original goals and aspirations. This kind of self-interest behavior is also related to the so-called self-serving fairness, which is a part of all active relationships in supply chains [44,45]. Self-serving fairness affects an individual's preferences and favors his own payoff [46]. This phenomenon can be explained by the evidence that the Americans are strong in individualism, which implies that they are more likely to rely on their own view to make decisions and only care about their own interests [42].

4.2. Summary of LX Case

LX plays the role as a leader in its relationship with retailers. Although it offers an MOQ requirement under LX's MMP scheme, the markdown money is also offered voluntarily, which is deemed as kind of "pull money" for LX to trade with its retailers. Under such scheme, with sales data sharing, the retailers are more convinced to order more and meanwhile the markdown money helps LX to reduce the leftovers to ship back. The benefit of such scheme has been confirmed by Krishnan *et al.* [24] that the supplier's profit could be maximized if the supplier is able to access to the retailer's early-season demand data. There are several other interesting insights stated as follows.

First, the economic circumstance has a significant impact on supply chain contracting in the fashion industry in China. It is well-known that the Chinese economy was booming in the recent decade which led to a high consumption of the fashion products [47,48]. To seek a higher profit, Chinese fashion brand owners were more aggressive. They were willing to give benefits to their retailers and attract them to be more cooperative. For example, in LX, MMP scheme could help retailers to incur a lower overstocking and out of stocking risk. If the scheme was conducted in the favorable economic season, it would not be a big burden to LX. It is fine to adopt MMP when market demand is high. However, potential risk and danger were hidden in which such scheme would reduce the retailer's incentive to work hard when the market demand was low. As such, the provision of markdown money would reduce LX's profit margin and create a contract-induced moral hazard. Unfortunately, China economic was also influenced by the global financial tsunami in 2008. The fashion consumption dropped quickly and running a business in China was increasingly difficult at that time. LX was more risk-averse than before, and it explained why LX hesitated to continue to offer favorable returns.

In addition, the cultural factors such as power distance and collectivism could explain the behaviors of Chinese firms in trading with their supply chain partners. First of all, the markdown money is a kind of LX's "control and power" which would help it to build up the leadership and better manage its retailers. The fashion brand owner in China usually plays the role of the principal or leader, which could be explained by the principal-agent theory for contracting problems in supply chain management [49] and power distance in the cross-cultural study [50]. The China national culture is characterized by high power distance, which implies an acceptance of power inequalities [50]. People expect decisions to be made by the more powerful party and would not feel comfortable otherwise [51]. In China, power affects not only the leadership, but also the relationship [18]. *Guanxi* (relationship) is important in the Chinese business environment, and it is more desirable to associate with a powerful partner in China [52]. LX is more powerful than its retailers in the ability of developing the network, which directly implies strong *guanxi*. LX thus has the leadership in its business. Moreover, LX is quite casual and random to provide the markdown money during the season based on the inventory level, and LX's retailers do believe that LX could make the right decision. This reveals the meaning of relationships in a collectivism country like China, where Chinese people are more likely to depend on group-based decision, and they have strong emphasis on group loyalty [18].

5. Implications

MMP has been commonly adopted in the fashion industry. Naturally it may raise a question on whether MMP can enhance economic sustainability. In this paper, two case studies on the fashion companies in the U.S.A. (LC) and China (LX) are conducted. After comparing differences and similarities between these two investigated cases in terms of their use of MMP, we find that both the supplier and the retailer are more strategic and thoughtful in MMP contract design. In particular, markdown money is deemed as a kind of "incentive (push) money" in the U.S.A. and "pull money" in China. One potential explanation for this finding is that China and the U.S.A. have a huge difference in terms of culture background and economic setting [17,19].

According to the cultural perspective, we can make several interesting observations according to the investigated cases of MMP implementation in the fashion industry between the U.S.A. and China. The case studies deliver important insights on how fashion companies adopt MMP to achieve economic sustainability. Table 1 summarizes the observation of our case studies with regard to the differences of contract implementation between China and U.S.A. in the fashion industry for enhancing economic sustainability.

Table 1. Observations of contract implementation in China and U.S.A.

China	U.S.A.
Chinese fashion companies with a stronger bargaining power are more willing to manage the supply chain.	American fashion companies with less strong bargaining power have to bargain with his retailers and show their sense of fairness.
Chinese fashion firms prefer dynamic contract.	American fashion firms believe that the formal contracts could ensure their own interests.
Chinese fashion firms hold a stronger leadership in supplier side.	American fashion firms hold a stronger leadership in retailer side.
Chinese fashion firms care more about *guanxi*.	American fashion firms pay more attention to contracts than their relationship with their partners.

In addition to the general insights into the supply chain practices in China and U.S.A, we have observed the following intercultural insights, which are also critical factors for economic sustainability enhancement. First, power distance can influence the supply chain contract design in fashion companies, which further affect the respective companies' economic sustainability [16]. Observe that power is described as the influence of one party over the other [52]. In China, a relatively high degree of power distance country, fashion companies with stronger bargaining power are more willing to manage the supply chain and offer the markdown money voluntarily to their retail clients, whereas in the U.S.A., a relatively low degree of power distance country, fashion companies with smaller bargaining power have to bargain with their retailers and show their sense of fairness. As a result, the markdown money is asked to provide involuntarily in the American fashion companies. Power usually refers to the ability of a party in a relationship to hold and control the distinctive knowledge, useful information and important skills that are valuable to the other party [53], whereas power also concerns a party's desire to be associated with another one out of admiration [18]. This finding would also be supported by the work of Su and Zhang [54] in which they suggest that a strong supplier should offer the markdown money to his retailer for obtaining a better business performance. This further implies that MMP can enhance economic sustainability [5].

Second, collectivism and individualism affect the behaviors of fashion companies in supply chain contract management. Contract management plays an important role in improving economic sustainability [5]. Based on Pan and Zhang's argument [55], the U.S.A. is strong in individualism, which means that the Americans are more likely to look at their own interest in making decisions and less likely to cooperate, whereas China is strong in collectivism, which means the Chinese people are more likely to cooperate with others and care more about loyalty to the group. This can explain the phenomenon in our case studies that LC (the American fashion company) prefers following strict rules in designing MMP, whereas LX (the Chinese fashion firm) is quite casual and random to provide the markdown money during the season. American firms believe that the formal contracts could ensure their own interests so that the partners tend to focus on the original goals and aspirations, whereas Chinese firms do not consider the contracts as seriously as the American counterparts. Instead, they prefer more a dynamic contract and tend to pay more attention to relationships with their partners than contracts. This is also a way to understand the rationale of supplier selection in China, where Chinese firms usually love to know their partners through "personal introduction" by their reliable friends [29].

Third, the success of fashion firm's economic sustainability is directly related to the presence of constructive leadership, which is crucial for stimulating the cooperative behavior between participating firms. Power distance and collectivism/individualism both would affect the position of supplier–retailer leadership in the U.S.A. and China. The practices of contract format are related to cultural factors, and the contract format with markdown money is a determinant factor for leadership. For example, a less formal contract on markdown money in China firms would lead to a stronger leadership on the supplier side. The importance of leadership is emphasized in supply chain management. Ellram and Cooper [56] indicate that a supply chain leader is like a channel captain in the marketing channels and play a key role in coordinating and overseeing the whole supply chain. It is well-known that if the supply chain is coordinated, naturally the performance of the whole supply chain arguably will be improved. To achieve this great performance, fashion companies in China, a high power distance and collectivism country, should undertake more activities that could enhance the local partners' trust and take more responsibility in the position of the leader. However, the cooperative behavior does necessarily need a close relationship being established.

Fourth, it is well-known that relationship is the key factor for sustaining business success in supply chains [16]. Power distance and collectivism/individualism affect the supplier–retailer relationship (*guanxi*) in the U.S.A. and China. As a higher power distance and collectivism country, Chinese people care more about *guanxi*, whereas people from a lower distance and individualism country like the U.S.A. do not. For Chinese fashion companies, *guanxi* dominates all kinds of supply chain relationships. *Guanxi* is crucial for the success of Chinese companies, particularly for the business processes related supplier-buyer relationship. As a result, more flexibility with "human decisions" is critical to ensure success in using the ad-hoc incentive and benefits for companies operating in China.

However, the American fashion companies emphasize more on the importance of contracts and the final performance in the supply chain, instead of relationship.

6. Conclusions, Future Research Opportunities and Limitations

For limitations and future research directions, this paper enriches the body of knowledge regarding supply chain contracts in the fashion industry, but we believe that future research can be conducted that includes a quantitative analysis with a substantially large sample size on the supply chain contract adoption in the fashion industry. In addition, due to the limitation in network, we only focused on exploring the contract implementation in U.S.A. and China. It would be interesting to expand the study to cover the fashion companies in places like Europe and Africa.

Undoubtedly, for the global fashion business, understanding the business culture is critically important for its long-term economic sustainability. When trading internationally with companies in countries like China and the U.S.A., mutual understanding from each other is extremely important. For example, for the American fashion firms, when they enter the China market, they should undertake more actions to develop long-term relationships with Chinese retailers. These firms should understand the culturally founded expectations of their global supply chain partners, and should work toward establishing relational norm governance strategies accordingly so that both parties can work smoothly. A cross-cultural adaptation is significant for firms to create the greatest likelihood of a successful cross-cultural buyer–supplier relationship. This has been confirmed that the long-term relationship is important for the success of supply chain on the basis of cross-cultural business circumstance [19].

This paper discusses many industrial practices of MMP adoption in the fashion industry to enhance economic sustainability. It is important to solve the real industrial problems based on the industrial practices. We have two-fold extensions for future research. First, we can theorize that relationship partners from different culture backgrounds. For example, for supply chain parties, from an individualistic, small power distance, weak uncertainty avoidance, short-term oriented culture, what kind of incentive supply chain contract would be more suitable to be applied? On the other hand, which contracts should be given to a collectivist, large power distance, strong uncertainty avoidance, long-term oriented cultural partner? Moreover, it is also important to incorporate the supply chain agents' preference, such as risk-averse and fairness, into the analytical model and explore their impacts on supply chain coordination and optimal global sourcing decisions.

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Appendix: Interview Questions

1. Could you please introduce your company?
2. What kind of supply chain contracts are you adopting with your retail buyers and how?
3. How would you evaluate the adopted supply chain contracts with your retailers?
4. Have the adopted supply chain contracts helped to build up the good relationship with your retail buyers and how?
5. Do you expect these adopted supply chain contracts be used in a longer- or shorter-term?
6. How would you describe the relationship between you and your retail buyers?
7. Who is responsible for managing this relationship and how?

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