

# **The Mattel Affairs: Dealing in the Complexity of Extended Networks**

**Sergio Biggemann**

Senior Lecturer

Marketing Department – School of Business

University of Otago

Ph: 64 3 479 8467

Fax: 64 3 479 8172

[sbiggemann@business.otago.ac.nz](mailto:sbiggemann@business.otago.ac.nz)

Dunedin – New Zealand

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(Competitive paper)

## **Abstract**

Outsourcing and/or offshoring is an increasingly common practice in industry. This practice, fuelled by the need of continuous cost reduction, produced large concentration of supply capacity in Asian countries, mainly China. Particularly important is the case of the toy industry that sources more than two thirds of their products from China.

Although cost-effective, outsourcing and/or offshoring increases the complexity of the network in which companies interact and therefore increases cost of coordination between parties. Thus, it challenges the effectiveness of existing business processes.

I studied the problems of product quality and safety that Mattel faced previously to Christmas 2007; the most important selling season for the toy industry. Lead painted toys and loosely fixed magnets –to mention two examples– caused massive recalls triggering a crisis that jeopardised Mattel's position in the market having severely damaged the firm's bottom line, the value of its stock, and potentially its brand reputation.

I analysed publicly available information such as official company communiqués and media reports, to investigate the reasons why a company like Mattel could end in such a difficult situation. I found that while division of labour reduces manufacturing costs it increases complexity and makes coordination more difficult and more expensive, potentially overshadowing savings of outsourcing and/or offshoring. I also found that there are significant differences in the parties' behaviour of Western buyers and Chinese suppliers when it comes to manage relationships in complex networks. From a Western perspective, networks are open and boundary-less and thus foster interconnectedness of several actors and resources. In contrast, from the Chinese "Guanxi" perspective networks are not only closed and well defined but also its purpose is deemed to protect network members from outsiders. These disparate perspectives substantially affect the performance of buyer-seller relationships.

The consequences of continuously extending the division of labour without the proper mechanisms of coordination can be significant. Potential problems only get worse when mixing Western and Chinese perspectives of business networks. I conclude the paper with implications and recommendations for further research.

**Keywords:** Outsourcing, Offshoring, Network Coordination, Business Relationships

## **Introduction**

The 2007 Christmas season will be, for the American toy manufacturer Mattel, an occasion to remember. Few months before the most important sales season for the toy industry Mattel had to face the reaction of both the general public and the media after announcing massive recalls of potentially harmful toys for children. Whether the toys were faulty designed and therefore prone to loose small magnets, which if swallowed could harm children, or they were toys tainted with lead paint by unscrupulous Chinese manufactures did not make a difference. They were dangerous toys that could not be left on store shelves. However, the proximity of Christmas precluded replacements to be on time. Even without this problem Mattel was going to face a difficult season because the American economy was suffering a major crisis caused by the financial sector sub prime loans' burst. Thus in an already weaken environment of low consumer confidence Mattel had to recall thousands of toys jeopardising its position even further.

The outcome was just as it should be. Mattel shares collapsed loosing more than 45% of its value. Even though sales at overseas markets helped Mattel to deliver profits for the season (Casey, 2008), those were of little significance compared with Mattel's losses of market value. The magnitude of the problem was such that not only Mattel shareholders suffered, it raised a number of issues on the level of damage that China manufacturers were causing to the American economy. The media immediately connected the toys' recalls with other problems of quality that Chinese products were having, namely poisoned pet food, contaminated toothpaste, and so forth.

Before an event as significant as this I posit a research question of "How could Mattel end in such a difficult situation?" Looking to the problems, it can be argued that they were easily avoided. Particularly for the lead tainted toys, everybody knows that lead poisoning causes Saturnism; the Romans learnt about it the hard way. Thus, how can it be that a company like Mattel jeopardises its market positioning using lead-based paintings for toys? But also for those toys prone to loose small magnets, how could it be that a company like Mattel designed a toy that could potentially harm children, who are, not coincidentally, their target market. Is it only negligence or is it something worse? Arguably, it seems to be an unavoidable outcome of Mattel's sourcing strategy. Can we, from academy, contribute to explain a situation like this, learn something and hopefully provide business practitioners with better tools to prevent it in the future? This is the aim of this paper.

For addressing the problem first I portray an analytic framework built on three successive blocks: 1) the economic perspective: outsourcing/offshoring motivation, 2) the operative perspective: interaction within networks, particularly coordination of interaction, and 3) the relationship perspective: comparing Western and Chinese views of business relationships in network settings. Secondly I depict the events based on publicly available information, which I analyse with the aid of the conceptual framework previously described, and finally I offer my conclusions, write down implications and recommendations for further research.

## **Outsourcing motivation**

The ever-changing business environment puts pressure on companies to keep high levels of competitiveness in order to retain and, if possible, increase market share. This is not a new type of business behaviour. Instead, seeking for new ways to increasing competitiveness has been the way to do business for many years. The first place to look at when competitiveness is

reducing is costs. A very basic economic principle of demand elasticity tells us that lower prices increase demand. Thus, reduced costs should allow for reducing prices and increasing demand, which can be deemed as increasing competitiveness. Costs can be reduced whether by improving efficiency or appealing to division of labour, which favours moving production from in-house to outside suppliers that are capable of producing at similar quality but at lower costs. This is called outsourcing.

Motivated by potential savings the industry embarked in the first wave of outsourcing during the late 70s. The rationale was to keep focused in core competencies and leave non-critical processes in hands of other parties. Two different outcomes were achieved. On the one hand, some companies were able to grab such benefits from their outsourcing decisions that soon were keen to extend this practice even to those critical or core-competence processes, seeking for other sources of competitiveness apart from costs. On the other hand companies that failed to achieve their objectives took back home most of the previously outsourced processes. These opposing outcomes reduced the impetus to continue outsourcing and opened the debate on the reasons why outsourcing fails to deliver benefits in some cases. Nevertheless the race for gaining competitiveness continued and not much later division of labour was turning into international division of labour, meaning that outsourcing was finding house abroad, particularly at low-cost labour countries. However, the industry had learnt that outsourcing was not a panacea, thus some companies evaluated between outsourcing and offshoring manufacturing facilities.

The main difference between outsourcing and offshoring resides on the independency of the supplier. Outsourcing implies relocating an activity outside of the firm, whether the outside supplier is local or international. Offshoring is relocating an activity abroad but keeping the control inside the firm, i.e., the off-shore facility continues to be operated by the offshoring company. Lewin and Peeters (2006) call this the 'Captive Model.' Both outsourcing and offshoring are equally motivated by the need of keeping competitiveness, the continuous pursuit of lowering costs, increasing quality, and enhancing flexibility. Marin (2006) argues that offshoring is favoured by low organizational costs and hierarchies and large costs of holdup.

Offshoring and outsourcing have the same motivation and similar outcomes. Jahns, Hartmann, and Bals (2006) argue that the main driver for offshoring has been to leverage global costs differentials and Lewin and Peeters (2006) argue that offshoring, whether to wholly owned facilities or independent service providers is a cost-cutting strategy. However, offshoring has fewer problems of unmanageable risks. Thus, offshoring appears to be a superior alternative. Nevertheless, some industries have adopted both. For instance, the toy industry competes in an environment such that competitiveness appears not to be sustainable by having only off-shored manufacturing facilities. Amongst the conditions that the toy industry faces are: 1) seasonal imbalances, –almost half of total annual sales happen towards the end of the year, which creates significant problems of capacity management, 2) continuous introduction of new products, which has shortened the life cycles of their products creating inventory management problems, and 3) cost-cutting pressures (Johnson, 2001). Thus, the industry was forced not to rely only in offshoring but also adopt outsourcing practices to access resources of external suppliers.

Several problems were identified regarding outsourcing. Lonsdale (2001) argues that outsourcing might not be the most desirable course of action for activities that require transaction-specific investments because the firm risks finding itself locked-in to its supplier.

McIvor (2000) stresses that although outsourcing has been motivated for short-time cost reductions, it should be a strategic driven process. Gadde and Jonsson (2007), warn that in the long-term outsourcing makes difficult to preserve innovation capacity. Inconsistencies in quality and delivery times are also common problems. To manage these problems, Burgess (2007) recommends including written clauses of product quality, on time delivery, and service expectations in outsourcing agreements. These explicit contacts, the author argues, help preventing further problems. The perceived unmanageable risk is other problem of outsourcing that influence outsourcing decisions. Ellram, Tate, and Billington (2008) argue that if high perceived degree of unmanageable risk exists no outsourcing is recommended. However Mantel, Tatikonda, and Liao (2006), argue that effects of perceived risks can be mitigated by information formality.

There is little doubt about the benefits that outsourcing delivers; otherwise it will not have been adopted so widely. However, it does also require adequate management. Li et al.(2007) argue in favour of developing supplier's capabilities for improved performance of outsourcing initiatives. However, supplier development increases interdependence levels and needs for coordination between buyers and suppliers which might be expensive and not always easy to achieve.

In sum, outsourcing and offshoring are cost-cutting strategies that complement each other. They, however, increase reliance on other parties, increasing risks of failure and therefore increasing the complexity of the network in which parties need to interact in coordination.

### **Coordinated Interaction**

Producing and delivering whether goods or services requires a number of processes and activities working in coordination. These processes and activities generally involve suppliers, middlemen, and customers. That is to say many organizations participate and within organizations few departments are typically involved. In this multi-organization-multi-person involvement it can be expected to find parties having different objectives and priorities, which might not necessarily be aligned. Misalignment of objectives may cause uncoordinated actions, which may deliver poor results. For instance low customer service levels at high costs. Coordination means being able to conciliate customers' needs with suppliers' offerings. This implies sharing meaningful information, having visibility over the inventory, and, overall, the parties' willingness to collaborate.

A study conducted in the context of the US industry, (Lee & Billington, 1992), found very poor coordination between buyers and sellers was achieved. They suggested that coordination and collaboration are supplementary. Supporting this, Sawhney (2002) posits that coordination requires suppliers and customers working together.

A number of studies in the context of the supply chain link positive outcomes of parties' efforts with coordination while support the need of collaboration. Fine et al. (2002) focusing in building organizational capabilities for fast response, argue that the best logistics practices are grounded in collaboration and integration of the supply chain. Hammer (2001) argues that integration is achieved when suppliers, manufacturers, and customers share information in order to efficiently meet the needs of the market. Coordination and collaboration are deemed to be an important way to gain competitive advantage (Sarmah, Acharya, & Goyal, 2006). Even though collaboration is of paramount importance, it is not easy to achieve in multi-

organizational contexts, which instead of supply chains are indeed complex networks formed by several individual and institutional actors.

Coordinated interaction in such complex environments is hard to achieve by merely putting in place sets of norms and procedures, even at dyadic levels. Coordination requires instead entering the realm of business relationships. Medlin, Aurifeille, and Quester (2005) found association between coordination and the performance of relationship in network contexts. Johnston, Peters, and Gassenheimer (2006) compared business-to-business relationships in network settings as a silk-fabric intertwining from which properties derived a typology that include reinforcement, complementarity, synergy and reciprocity. Using this fabrics metaphor it can be argued that multi-organization networks are like multi-layer-multi-fibre fabrics. From a relationship perspective processes of exchange and adaptation between parties knit the fabric. Each time a new party is included a new yarn is added to the knitting process potentially changing the knitting pattern and thus the fabric's attributes.

To this point we have argued that cost-reduction strategies motivate companies to outsource. This practice increases the complexity of the network in which several parties are expected to coordinate activities in order to satisfy customers' needs as efficiently as possible. Kleinaltenkamp (2007) argues that although division of labour is deemed to lower productions costs while increasing output, it also requires higher levels of coordination and cooperation, which puts pressure on costs. Thus, there is an optimum level of division of labour in which the sum of benefits and additional costs deliver an overall minimum cost. Taking division of labour beyond the optimum point would represent increased overall costs.

### **Guanxi, a Chinese perspective of relationships**

Interaction has been largely studied in business-to-business marketing literature. From a Western perspective, it is through interaction that parties' motivation to maintain relationships increases; committed parties are willing to keep the relationship because their evaluation of the benefits and sacrifices that relationship requires and delivers are positive. From a network perspective acts of one party have consequences on their counterparts as well as on other members of their extended network (Turnbull, Ford, & Cunningham, 1996) affecting the parties' perceptions of the value that relationship can deliver that therefore their levels of commitment. Anderson, Håkansson, and Johanson (1994) accentuate that actions of one firm in the extended network might have constructive or deleterious effects on other companies embedded in the same network. It can be argued that consensus exists in the open-ended nature of networks as well as in the effects that episodes occurring in one or more relationships in the extended network have on other relationships, whether they are directly linked or not.

Less is known of business relationships in Chinese settings. A number of publications use the term Guanxi for addressing the topic of relationships in China. Guanxi is regarded as tightly packed networks created to protect Chinese interests from foreigners or outsiders. Guanxi is pictured as a set of concentric circles of contacts in which the centre is the individual and goes outside through a series of different levels of relationships, beginning with the family in the inner circle and progressing to include everyone beyond family with whom the person has relationships. There is people in the outer circle with whom no exchange has been established (Langenberg, 2007; Luo, 1997). Being part of someone's Guanxi creates an obligation to reciprocate the received favours (Fan, 2002; Leung, Wong, & Wong, 1996).

Although there is no absolute consensus regarding the definition of Guanxi, from a business perspective, it refers, in general, to a type of network to which a business or person must pertain to succeed. Leung et al. (1996) define Guanxi as a major determinant for successful business in China. Luo (1997) puts forward the positive effects of Guanxi on the effectiveness and efficiency of firms, while Buttery and Wong (1999) stress that relationships are paramount in business for China-based economies. On the contrary Flambard-Ruaud (2005) brings to the fore some negative aspects of Guanxi, like its connexion to bribery and corruption. It was said to be a double-edged sword that can harm weak Chinese corporate governance (Braendle, Gasser, & Noll, 2005).

Flambard-Ruaud (2005) argues that Chinese see business moving from relationships to transactions. That is to say, from the Chinese perspective Guanxi is for building relationships between two or more people wishing to transact business (Buttery & Wong, 1999). Wang (2007) argues that foreign companies wanting to do business with Chinese companies must become insiders, i.e., enter the Guanxi. Having to enter a network suggests that it is viewed as closed and therefore having boundaries. This network view recognises the existence of outsiders and insiders.

Whether the existing knowledge of Chinese relationships is incomplete or there is a fundamental difference with the western view of relationships, there are some differences that may have significant effects on relationship performance when Chinese and Western companies blend to produce results.

First is the difference of network perspective, open and boundary less in the west whereas closed and with clearly defined boundaries between insiders and outsiders for Guanxi. Second the purpose of relationship as business enabler for Guanxi as opposed to the western take of relationship as the outcome of interaction. For instance trust, an important dimension of business relationships, emerges, from the western perspective, as a result of the parties' demonstration of being credible, competent and carrying about the other. On the contrary, Fukuyama (1995) argues, that in Chinese environments trust is reserved to those belonging to the family. And third that apparently Guanxi is only based on personal relationships as opposed to the multiple dimensional western business relationships.

### **A conceptual framework in brief**

The conceptual model developed above can be abridged as follows: First, increased pressures to improve competitiveness lead some companies to rely on division on labour to reduce costs of manufacturing goods or delivering services; i.e., outsourcing and/or offshoring. Second, outsourcing and offshoring increase complexity of the network hence increasing costs of coordination. Third, coordination needs information sharing and collaboration, i.e., coordination needs relationship management. However, relationships from Western and Guanxi perspectives appear to be fundamentally different. This, increases difficulty of coordination because information does not flow as it should be to foster coordination and inter-company collaboration. This is the stream of thinking that I have followed in analysing the case.

### **Methodology**

This research is completely based in secondary data. Sources include Mattel Corporation websites, printed media such as newspapers and practitioner magazines, television, particularly news broadcasting but also public debates and records from press conferences offered by Mattel to explain the problem.

I fully transcribed all forms of data into rich text files for analysis. Then I organised materials by sources and by topics seeking for common themes and other matters that were arising while time elapsed. I paid particular attention to inconsistencies in same-party communiqués. For instance one in which Mattel began announcing an isolated quality problem which was soon followed by a massive recall of thousands of toys. I sought if the data could be hiding a metatheme that could help answering the research question. I coded texts at the level of paragraph revisiting data during the process in case some text could need re-codification after a new theme emerged. I continued adding data until its contribution became of little significance. Yin (2003) calls it saturation.

### The company<sup>1</sup>

Mattel is a leading company in the toy industry created in 1945, which currently produces more than 150 different lines of toys oriented to satisfy the needs of children from 0 to 99 years. Mattel directly employs more than 25,000 people worldwide. However this figure is easily tripled if contractors are included. Mattel's vision is to be "The world's premiere toy brand – today and tomorrow." Mattel is owner of a number of iconic toys and renowned brands such as Barbie, Hot Wheels, American Girl, and Fisher Price. Some figures of Mattel's sales, illustrate the current dimension of the company: *"Eight Hot Wheels cars are sold every second, three track sets every minute, and 230 play sets every hour. Hot Wheels basic cars currently are the number one-selling toy industry wide."*

Although some of their products were internally developed and launched, a large part of their product offering comes from acquisitions as illustrated in table 1.

**Table 1. A brief story of Mattel's marketing and acquisitions**

Decade	Market Events	Acquisitions
1940s	<b>1945 Mattel is born</b> Ruth and Elliot Handler and Harold "Matt" Matson launch a new company named Mattel in Southern California. 1947 The Uke-A-Doodle is the first in a line of musical toys.	
1950s	1955 Mattel begins advertising its toys through the popular "Mickey Mouse Club" television show. 1957 Barbie® doll makes her debut. Ruth Handler names the doll "Barbie," after her own daughter Barbara's nickname.	
1960s	1961 Ken® doll joins Barbie® doll. Barbie's boyfriend was named for the Handlers' son. 1963 Midge® doll is introduced 1965 Skipper® is introduced 1965 Mattel enters the educational preschool market with See 'N Say® talking toy. 1968 Mattel introduces Hot Wheels® die-cast vehicles. 1968 Mattel introduces Christie®, an African-American doll.	
1970s	1977 Mattel ventures into the electronic games market.	1968 Mattel purchases the first of several companies as part of its "World of the Young" acquisition strategy. Monogram Models is first, and over the next decade follow Metaframe, a pet products company; Turco, a manufacturer of playground equipment; Ringling Brothers and Barnum & Bailey Circus; Circus World, a theme park; Western Publishing Company; and Radnitz/Mattel Productions, a motion picture production company.

<sup>1</sup> Most of the information in this section comes from the company's website



	1979 Mattel introduces the Intellivision home video entertainment system.	
1980s	1982 He-Man® and the Masters of the Universe® take the stage. 1988 Mattel introduces Theresa®, a Latina doll 1988 Mattel revives its association with the Walt Disney Company. It begins with the introduction of a line of infant and preschool toys based on famous characters like Mickey Mouse, Winnie the Pooh, and the Disney Princesses.	1986 Mattel acquires Hong Kong-based ARCO Industries. 1986 Mattel enters into a joint venture arrangement with Bandai, Japan's largest toy company. 1988 Mattel agrees to purchase Corolle S.A., France manufacturer of collector-quality dolls 1989 Mattel acquires Corgi Toys Ltd., a British maker of scale-model, die-cast cars.
1990s	1990 Mattel introduces Kira®, an Asian doll. 1996 Fisher-Price introduces Tickle Me Elmo. 1996 Mattel announces that its Hot Wheels® brand of toy vehicles will sponsor Kyle Petty to race in the NASCAR Winston Cup Series. 1996 Mattel obtains a master toy license covering rights for all programming on Nickelodeon, the television network 1997 The Barbie line introduces a disabled friend in a wheelchair, Share a Smile® Becky®. 1998 Fisher-Price takes command of the entire Infant and Preschool character brands toy line. including licensed properties such as Bear in the Big Blue House, Blue's Clues, Disney, Sesame Street, and Winnie the Pooh. Fisher-Price also assumes View- Master® and Magna Doodle® product line development.	1991 Mattel acquires Aviva Sports, Inc., a maker of sport toys. 1992 Mattel acquires International Games, Inc. 1993 Fisher-Price® joins the Mattel family. 1994 Mattel acquires the toy company Kransco as well as J.W. Spears & Sons, a British game company. Through these purchases, Mattel acquires numerous product lines, including Power Wheels®, Hula-Hoop®, Frisbee®, Morey® and Scrabble. 1995 Mattel acquires the rights to manufacture and distribute Cabbage Patch Kids dolls. 1997 Mattel merges with Tyco Toys It adds power brands to Mattel's new infant and preschool category with the addition of View-Master and Magna Doodle. Tyco also adds the primary toy license for "Sesame Street." The merger adds Matchbox® and Tyco R/C to Mattel's Wheels business. 1998 Mattel purchases Bluebird Toys PLC of the U.K., the current license holder of the Polly Pocket brand. 1998 Mattel acquires Pleasant Company, best known for its unparalleled American Girl brand 1999 Mattel strikes licensing and marketing deals with Ferrari toy company and Bandai Co., Ltd. and merges with The Learning Company. Mattel and Bandai Co., Ltd. Announce a global marketing alliance.
2000s	2000 Mattel is granted the licensing agreement for Harry Potter. 2000 Mattel is named the worldwide master toy licensee for Max Steel®. 2002 My Scene brand launches	2003 Mattel receives a Corporate Responsibility Award from U.S. fund for UNICEF 2004 Independent monitor completes audit of Mattel suppliers in China

Source: [http://www.mattel.com/about\\_us/history/default.asp](http://www.mattel.com/about_us/history/default.asp)

Important to mention is that in 1986 Mattel initiated an extensive program of acquisitions that has driven Mattel's growth for the next two decades. Being an international program, Mattel recognised potential misalignments between companies, particularly for those being acquired. Thus, for integrating their manufacturing facilities located all around the world, a program called Global Manufacturing Principles (GMP) was created in 1997. GMP, as their corporate website states, is "*the cornerstone of Mattel's ongoing commitment to responsible manufacturing practices around the world.*" Although a large number of Mattel's facilities are company owned and operated (Barboza & Story, 2007), there are also a number of subcontractors used for producing both parts and finished goods. Thus, for supporting the GMP initiative it was also created the Mattel Independent Monitoring Council (MIMCO). Both GMP and MIMCO were intended to provide consistency on Mattel's own facilities and contractors' manufacturing practices.

MIMCO has been independently managed by Baruch College Distinguished Professor of Management Prakash Sethi. Since its inception a large number of audits have been conducted to both company owned and contractor's facilities; much has been achieved in terms of

improving the working conditions to factory workers (Dee, 2007). However, neither GMP nor MINCO were designed to keep track on product quality and specifications.

## **Recall Programs**

Product recalls are common practice in many industries, the toy industry being not the exception. Even though some recalls may reach sizeable dimensions significantly stressing and sometimes breaking relationships between buyers and suppliers (Biggemann & Buttle, 2007), most recalls pass almost unnoticed. However, the 2007 Christmas season toys recalls were widely covered because of the time and context of its occurrence. There were two different types of recalls for two different reasons, the first toys tainted with lead paint and the second toys containing magnets prone to coming loose. However, it is possible that the general public did not discriminate between the two. Media coverage was augmented because both recall programs were significant and contemporary. The first recall notice is dated 2<sup>nd</sup> August 2007, however it was not the only one. Instead, it followed a wave of recall notices totalling eight; two of which were related to loosing magnets and the other six about lead paints. The last toy's recall on October 25<sup>th</sup> was too close to Christmas to pass ignored. The number of toys recalled and the models involved were dramatically growing from around 600,000 to reaching more than three million units only in the US. The toys being recalled were all manufactured in China. China was already in the news because of undergoing massive recalls related to other products such as poisoned pet food and toothpaste. Adding to the problem, a major financial crisis began in the US. Journalists did not hesitate to link the new financial crisis caused by irresponsible bank lending with the already declining American economy caused, at least partially, by the matter that every day more companies were moving into China closing facilities in the US and therefore producing massive job losses (Steingart, 2007). To complete the scene, presidential candidates running for primary elections in the US did not hesitate either to blame China for each and every problem they could think of (Glover, 2007).

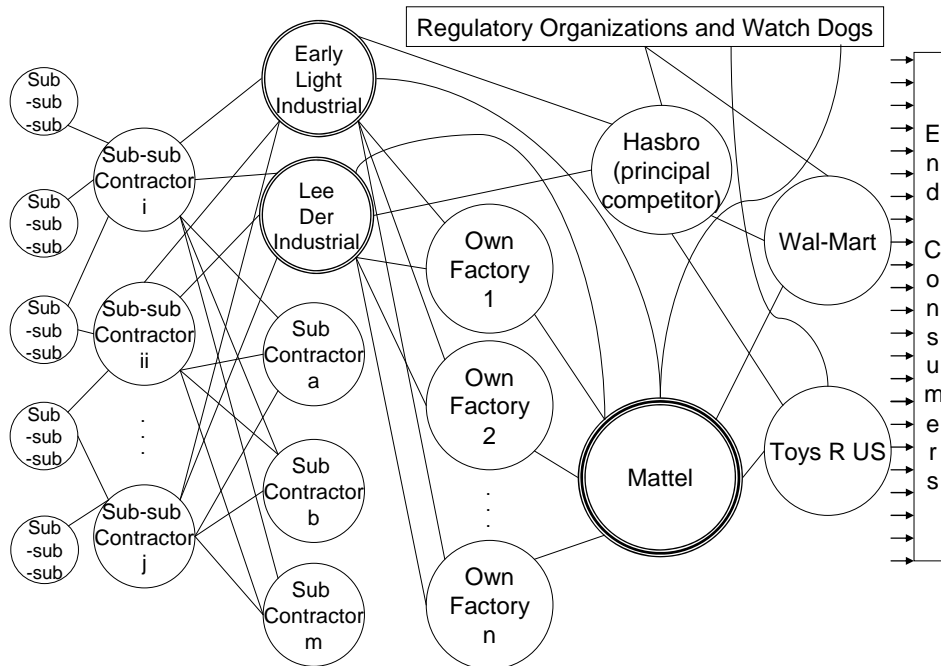
Whether the recall programs were augmented by the circumstances does not change the fact that Mattel suffered the consequences of its long tenure offshoring policy, raising my research question of "How could Mattel end in such a difficult situation?"

## **A Picture of Mattel's Network**

No business exists in isolation, they are all enmeshed in complex networks, has been a longstanding IMP proposition which I also endorse. Thus I start by identifying some actors that appear to be part of the network in this case. However, I acknowledge that the picture I managed to portray is limited to the actors that were mentioned in the sources of information that I have had access to and therefore might not be complete. However, the network picture helps to illustrating which actors were likely to be in interaction.

Mattel is not new in the business of offshoring and outsourcing. Indeed, they have been manufacturing abroad since 1959. The best illustration of this could be that not even the original Barbie was Made in USA; it was Made in Japan (Barboza & Story, 2007). With company owned offices in 43 countries around the world Mattel's network is rather extensive. Only in China it is estimated that Mattel employs directly and indirectly from 60,000 to

**Figure 1. Mattel's Network Picture**



80,000 people. Mattel owns and operates 13 factories<sup>2</sup> in China, Thailand, Malaysia, Indonesia en Mexico and does business with another 30 (Dee, 2007). In addition of Mattel's owned facilities there are a large number of contractors and subcontractors from which two highlight: Early Light Industrial and Lee Der Industrial. Both companies were found to have produced the lead painted toys (Barboza, 2007; Chen, 2008). Even though only one sub-contractor of Early Light Industrial is mentioned, I would expect that few of them exist. Likewise, sub-contractors of the sub-contractors should be expected.

Competitors in the toy industry are many although Mattel managed to buy a large number of them as shown in table 1; Hasbro is perhaps the most relevant. Likewise, in the customers' side amongst the many sales channels Toys "R" Us stands out and Wal-Mart, as always, is rather an important channel. Hamleys and few British channels and associations were also mentioned in the media coverage. Other important actors, because of the ongoing recalls are the Consumer Product Safety Commission, the Public Interest Research Group, the EU consumer commissioner. Figure 1 illustrates Mattel's Network Picture.

## Analysis and discussion

Two different edges of the problem can be discussed. First, what have caused the problem, and second how was it managed. Johnson (2001) argues that in the toy industry time to market and product turnover are vital. Time to market is important because of the intense competition that leads to the permanent introduction of new products while turnover is also important because of the high seasonality that characterises this industry. Thus companies are constantly negotiating between inventory carrying costs, mark downs, and costs of lost sales. In the toy industry once the Christmas season begins replenishment orders are very unlikely to arrive on time, overstocking is then desirable for those toys that perform well in the market, however, the day after Christmas unsold toys immediately become obsolete causing massive

<sup>2</sup> I could not confirm the figure since Mattel does not provide such information and the information available does not say whether 13 factories are only in China or in the five countries.

mark downs. On the one hand the industry needs big margins to make a profit while paying the costs of marked down items but on the other hand prices cannot increase because of intense competition. Therefore, the only option to keep high margins is by reducing costs. This, as our conceptual model proposes, means outsourcing and/or offshoring manufacturing; these days to China. Mattel has been practicing this strategy for more than fifty years, since the Barbie Doll was Japanese. As cost pressures increased and product life cycles shrunk, offshoring company-owned factories were not enough to remain competitive. This explains the reasons why Mattel not only relies so heavily on offshoring to their own facilities but also on contractors and subcontractors. However, it does not explain why they could not prevent the problems of quality that happened.

Whether outsourcing or offshoring the aim is to reduce costs (Jahns et al., 2006). However, it comes with significant doses of lost control and increased supplier's dependence. Although better performance can be achieved through supplier development (Li et al., 2007) and Mattel put in place programs such as GMP and MIMCO, the outcome of such efforts was not always the most efficient. A closer look to MIMCO's actions, –reports of audits are publicly available on the company website, suggests that they were focused on factory working conditions, such as child labour and prison labour but were not focused in the product. They have missed the big picture, which is the nature of the product (Dee, 2007).

Information management is not only crucial for mitigating risk of supply and supplier incompetence (Mantel et al., 2006) but also the parties willingness to share information is paramount for achieving coordination and therefore intercompany collaboration (Daugherty et al., 2006)). A revision of the recalling process indicates that information management was not the most appropriate. The first recall on August 2<sup>nd</sup> 2008, as published on the corporate website, reads *“Fisher-Price, in cooperation with the United States Consumer Product Safety Commission is voluntarily recalling a limited number of Nickelodeon and Sesame Street painted plastic toys produced by one specific contract manufacturer during a narrow timeframe.”* Six more official recalls and millions of toys across several categories suggest that products were not limited neither were produced during a narrow timeframe. Arguably Mattel did not only ignore which toys were contaminated, they did not even know which manufacturer had produced those toys. Few days after the first recall notice the media was reporting: *“Mattel Inc. late yesterday identified the Chinese factory involved in the company's big toy recall last week.”* (Casey & Zamiska, 2007). Mattel's CEO justified: *“Eckert said that the company was vague in its filing because it didn't know which toys were involved and how many were affected.”* (D'Innocenzio, 2007).

Contemporary to the lead-tainted paints more than a million toys, also manufactured in China were recalled due to small magnets that could become loose and, if swallowed by children, could cause fatal injuries. Trying to justify this problem, Mattel found no better way than blaming Chinese manufactures for being careless (Eckert, 2007). However, China reacted in defence of their products blaming American manufacturers for faulty designs (The Wall Street Journal, 28 August 2008). The Chinese government also created a committee to deal with the accumulated number of problems that Chinese products were generating (Leow & Chao, 2007). It was then when the issue became part of the political agenda not only amongst the aspirants to be appointed presidential candidates for the 2008 US presidential elections but also of the current US Secretary of Defence Donald Rumsfeld, who blamed China for the many quality problems found in Chinese products. *“Eckert, Mattel's CEO, applauded Rumsfeld's discourse”* (D'Innocenzio, 2007).

Less than a month later, however, Thomas A. Debrowski, Mattel's executive vice president for worldwide operations, publicly presented this apology to the Chinese Ambassador in the US: "*Mattel takes full responsibility for these recalls and apologizes personally to you, the Chinese people, and all of our customers who received the toys.*" (Gee, 2007)<sup>3</sup>. The company also apologised for damaging the country reputation (Casy, Zamiska, & Pasztor, 2007). Even though the media called the apology extraordinary and surprising, it can be argued that Mattel's actions support Lonsdale's (2001) findings regarding the risks that buying companies face of becoming locked-in to its supplier. Mattel might not have been locked-in to a specific supplier but an entire country.

After the problem hit the public arena neither party managed it very well. Mattel's communication campaign showed that they had no information of the magnitude of the problem. In a desperate reaction Mattel tried to dump all responsibility on their suppliers' shoulders, ignoring that many of their suppliers were their own factories. They were quick to side with politicians trying to appear as another victim of China's faulty manufacturing processes, only to have to walk back their steps to apologise to the people of China, a country where it happens to be installed most of their production capacity. However, at the other side of the chain when two Chinese suppliers were identified as responsible for the lead-tainted toys their reaction was not any better. Zhang Shuhong, the owner of Lee Der Industrial, committed suicide (Barboza, 2007). Although Hofstede (2001) would find this an expected behaviour, committing suicide did not help to solving the problem. The other supplier, Francis Choi, owner of Early Light Industrial, did nothing to prevent the use of lead-paint even though his company knew that something was not going well even before the toys were produced. "*Choi claims his employees became suspicious early last summer when they realized that a subcontractor has failed repeatedly to pick up the approved paint that it was required to buy from Early Light.*" (Chen, 2008 p.28). The reasons why the largest toy manufacturer in the world fails to communicate a problem like this to his largest customer suggest that the manner of conducting business in China, in tightly packed networks in which obligation to reciprocate favours exist 'Guanxi,' (Fan, 2002; Leung et al., 1996), has prevailed over the Western-type view of relationship in which it is through interaction and its outcome that parties' motivation to maintain relationships increases.

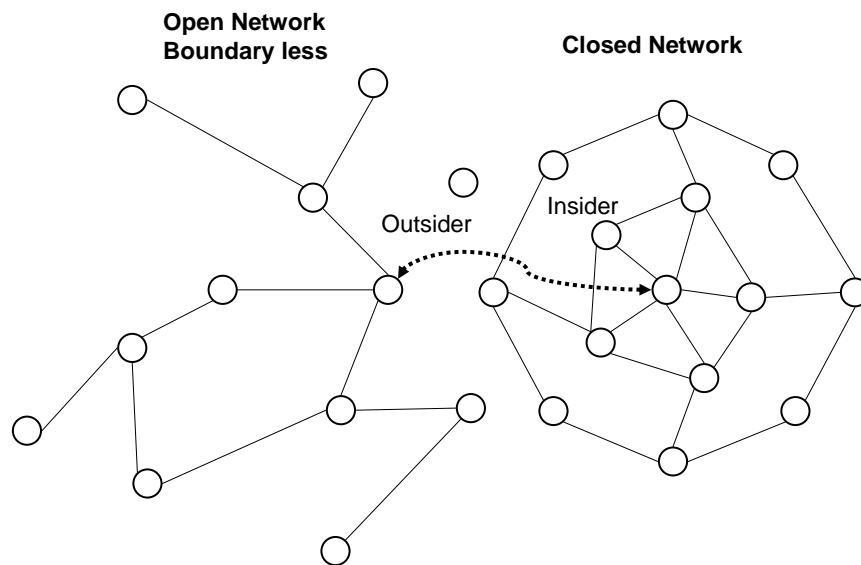
## Conclusions and Implications

This is a case of managerial malpractice. Mattel has focused only in the cost leverage offered by offshoring practices leaving aside necessary safeguards such as information formality and supplier development to avoid unnecessary risk exposure. Instead of effective tools to foster coordination, they opted for a cosmetic initiative (MIMCO), which was used to depict an image of a company concerned by the general welfare of their employees, which although remarkable, was worthless to guarantee that a quality product would reach the market. MIMCO, as it was conceived could not guarantee the quality of the product, as it could not GMP either. Kleinaltenkamp (2007) explains how division of labour may reduce costs of manufacturing while increases costs of coordination, particularly due to the augmented complexity of the network in which parties interact. Thus, the goal should be to minimize a function of total costs that includes not only the savings but also the increased costs. There is a point of inflection in the total costs curve after which offshoring and/or outsourcing practices do not provide enough cost reductions to overweight increased costs of coordination. By ignoring the costs of coordination Mattel has pushed its outsourcing

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<sup>3</sup> Note that the customer comes third in the apologies.

**Figure 2. Western and Chinese Perspectives of Networks**



practices as if they only delivered benefits, reaching an extreme at which important issues such as product quality and customer safety could not be assured any more.

Adding to Mattel's outsourcing policy are the contractor's outsourcing practices, they also rely on division of labour to cope with pressures of reduced costs. However, in relation to coordination mechanisms, it looks like they are not working well. Otherwise how can the subcontractor fail to pick up the painting and still deliver the goods?

I argued that coordination requires relationship management, a task that is indeed difficult in complex networks. By using a textile fabrics metaphor I illustrated such complexity as if increasing division of labour was adding an extra yarn to the knitting process; being the new yarn potentially a different fibre and therefore it might change the structure of the whole fabric. The previous description could be applied to any new entrant to the network, however, when it happens to be a Chinese supplier, the network complexity is augmented further. Mixing a Western view of relationship with Guanxi equates to not only adding a different fibre but also a different knitting pattern.

The main problem appears to be in trying to coordinate the actions of an insider and an outsider. To illustrate this point let's consider Mattel's connection with a company like Early Light Industrial or Lee Der Industrial. As figure 2 illustrates, it is a connection between an insider (Early Light Industrial) and an outsider (Mattel). Despite the quality of such relationship the outsider cannot access any further and therefore ignores what is occurring beyond its only point of connection to the Guanxi network. Thus, when a sub-contractor fails to comply with product specifications, the customer, in this case Mattel does not get any notice. For instance, Early Light Industrial knew that the subcontractor failed repeatedly to pick up the approved paint but did not communicate it to Mattel. This makes coordination almost impossible and explains the reasons why Mattel did not know about the quality problems; and what is worse did not know the size of the problems that was facing.

In these conditions, how can Mattel know the capabilities of which suppliers should be developed? Even if Mattel would be committed to set tools in place to foster communication

between parties, they will not be able to capture crucial information occurring inside Guanxi because its purpose is to protect insiders.

Based on the information analysed, I hypothesise that Mattel has traded low costs with high risks of system failure. As far as quality and safety problems are manageable through product recalls, it looks like the massive savings that sourcing from China delivers outweigh potential losses that might occur as a result of uncoordinated interaction. Perhaps the network is so complex that even attempting to coordinate interaction is an impossible task. However, in Christmas 2007 the odds were against Mattel; the bill cost was 45% of the shareholders' wealth.

### **Limitations and further research**

This research is limited to the information available through publicly available sources of information. Therefore researchers with access to different sources of information may reach to different conclusions.

For a better integration of both Western and Chinese perspectives of business relationships, more research is necessary. Although both perspectives are in essence similar, i.e., network-based views of relationship they also appear to be fundamentally different. More research may also uncover other motivations for offshoring and clearer reasons why information does not flow as existing research in supply chain collaboration suggests is necessary.

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