

CASE STUDY: SPIN MASTER TOYS (A): FINDING A MANUFACTURER FOR E-CHARGERS

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Background

Spin Master Toys, a rapidly growing Canadian toy company, is facing a significant challenge in selecting the right manufacturer for their latest product, the E-Chargers, an electrically powered toy airplane. With limited time to bring the product to market, they must choose between two suppliers: Wah Shing Electronics Co. Ltd. and Wai Lung Plastics Mfy. Ltd.

Synopsis of the Case

Alex Perez, Spin Master Toys' operations manager, is responsible for determining which supplier will produce the new E-Chargers toy. After exploring multiple options in Southern China, two potential manufacturers emerged: Wah Shing and Wai Lung. Spin Master Toys must choose between these companies and begin production quickly to meet a tight launch deadline and capitalize on their retail shelf space.

Main Objectives

1. **High Performance & Low Cost:** Spin Master Toys aims to balance high performance with low cost in its manufacturing partnerships to maintain competitiveness in the toy industry.
2. **Time Constraints:** Spin Master needs 20,000 units ready by December 1999 to secure market advantage. Quick action is required due to delayed design and tight production schedules.
3. **Novelty of New Product:** The E-Chargers toy is a highly technical product compared to Spin Master's previous offerings. It involves advanced electronic components, including

capacitors and electric motors, which require precise engineering and manufacturing expertise. Ensuring that the toy meets weight specifications (ideally 17 grams) is crucial, as even a slight increase in weight can affect performance and flight time. The supplier must have experience in handling electronic toys, particularly those involving intricate design and stringent quality controls.

4. **Supplier Selection:** Spin Master has narrowed its options to two suppliers, Wah Shing Electronics Co. Ltd. and Wai Lung Plastics Mfy. Ltd. Each supplier presents different strengths and weaknesses, and the decision is complicated by the need to balance expertise, production capacity, speed, and reliability. The choice of supplier is critical, as it directly impacts the ability to deliver a high-quality product on time.

Central Issue

The central issue in this case is the decision of which supplier, Wah Shing or Wai Lung, can meet Spin Master's urgent need for both quality and speed in producing the E-Chargers toy. The company faces a complex trade-off between selecting a supplier with proven expertise in electronics (Wah Shing) and one that has demonstrated reliability and a personal commitment to the company (Wai Lung). The technical demands of the project, combined with the tight deadline, create a high-stakes situation where Spin Master cannot afford delays or quality issues.

The challenge is further complicated by the need to balance multiple factors such as:

- **Speed to market** to capture the first-mover advantage in a competitive toy category.
- **Technical precision**, particularly in maintaining the weight and structural integrity of the toy to ensure its functionality.
- **Supplier capacity** to meet the high production volume required for the December 7 launch date.
- **Ongoing supplier relationships**, as the company has valued personal attention and trust in previous projects but now requires greater technical capabilities.

Ultimately, Spin Master must make a decision that balances the immediate need for technical expertise with the long-term relationship it hopes to maintain with its suppliers, all while ensuring the product meets retailer and market expectations.

Attributes	Wai Lung	Wah Shing
Staff Level	Lower	Higher
Credit Term	Better	Lower
Capacity	Excess Capacity	Lower 70 - 80%
Service	High Responsive	Lower Responsive
Distance	Closer	5 hours away
Experience	Lack of experience in flying Toy	Good reputation in electronic toy
Ownership	Privately owned	Subsidiary of a larger Hong Kong toy manufacturer
Management	The owner has direct influence over strategic decisions	Managed by a committed team

Side Issues

1. **Supplier Expertise and Experience:** While Wai Lung has been a reliable partner in previous projects, it lacks experience with complex electronics, which poses a risk to the success of the E-Chargers. On the other hand, Wah Shing has extensive experience in producing electronic toys but has recently undergone management changes, raising concerns about whether they can maintain their previous level of service and attention to detail. The varying levels of expertise in electronics are important, but secondary to the primary concern of meeting the launch deadline.
2. **Capacity and Flexibility:** Both suppliers have differing production capacities and levels of flexibility. Wai Lung has excess capacity due to a recent loss of business and has demonstrated an ability to quickly scale up production when needed. Wah Shing, on the other hand, is already operating at 70-80% capacity, which could limit their flexibility in managing production challenges for the E-Chargers. Although capacity is important, Spin Master's immediate need is ensuring timely and precise execution of the project's technical demands.
3. **Cost Considerations:** Wai Lung's cost (excluding electronics) is HK\$15,438.62 per 1,000 toys. Wah Shing's cost (including electronics) is HK\$29.4783 per toy. Wah Shing is more expensive but has the necessary expertise for electronic components.
4. **Retail Commitments:** Spin Master Toys has secured valuable retail shelf space for the E-Chargers, including several large feature endcap orders. Failure to meet production deadlines could result in the loss of these prime retail spots and damage relationships with major retailers. This places additional pressure on the company to ensure that the chosen supplier can deliver the product on time.

5. Internal Resource Limitations Limited Engineering Expertise: Spin Master faces internal resource constraints, particularly in the area of engineering expertise. The company's Hong Kong office lacks the engineering capabilities needed to fully assess the suppliers' technical competence. Additionally, Spin Master's core manufacturing team consists of just Alex Perez and Ronnen Harary, placing significant pressure on their ability to oversee a complex project like the E-Chargers.

This limitation creates several challenges:

- Supplier due diligence: Without sufficient internal engineering expertise, Spin Master may struggle to evaluate the technical capabilities of Wai Lung and Wah Shing, especially given the novelty of the E-Chargers' design.
- Project management: Managing a complex, multi-stage production process with a small team increases the risk of oversight failures, communication breakdowns, and missed deadlines.

Analysis and Insights

The case presents a multifaceted problem where Spin Master Toys must balance technical expertise, timeliness, and supplier relationships in the selection of a manufacturer for the E-Chargers toy. Several layers of complexity must be managed to ensure successful product development, highlighting important strategic decision-making principles.

1. Time vs. Quality Trade-off

The urgency of meeting a December 7th launch deadline creates a classic time vs. quality dilemma. Spin Master has four months to go from design to delivery, a timeframe that is already tight for a complex electronic product. This timeline pressures the company to consider not just the technical capacity of the suppliers but their ability to accelerate production without sacrificing quality.

Insight: In high-stakes product launches, speed is critical, but cutting corners on quality can lead to long-term brand damage. Spin Master should ensure that the supplier can meet not only the deadline but also deliver a high-quality product that will perform as expected. Failure to do so would likely result in customer dissatisfaction, returns, and missed sales opportunities during the peak season.

2. Technical Expertise in Electronics

The E-Chargers toy represents a leap in complexity for Spin Master, moving beyond simple mechanical or plastic toys to one that integrates advanced electronic components (capacitor, motor, etc.). The product requires precise engineering, particularly in maintaining a weight of 17 grams, where even a minor increase will negatively affect performance. Wah Shing has significant experience in producing electronic toys, while Wai Lung is relatively inexperienced in this domain, despite a history of reliability with non-electronic toys.

Insight: For a product like E-Chargers, technical expertise should be prioritized. Wah Shing's experience with electronic components is a key advantage, as they have a proven track record of manufacturing toys with similar specifications. Although Wai Lung's reliability is appealing, their inexperience with electronics introduces unnecessary risks.

3. Supplier Relationship and Flexibility

Spin Master's previous success with Wai Lung on the Finger Bikes project highlights the importance of having a strong, flexible partnership. Wai Lung's ability to ramp up production quickly, offer favorable credit terms, and provide personal attention is a testament to their agility and commitment. However, the shift to electronics introduces risks Wai Lung may not be equipped to handle. Wah Shing, although more experienced in electronics, has undergone management changes, which introduces uncertainty about the continuity of their commitment.

Insight: While supplier relationships are important, in this scenario, technical capabilities must take precedence. Wah Shing's potential for delivering a precise, electronics-based product

outweighs Wai Lung's demonstrated flexibility. However, Spin Master should maintain its relationship with Wai Lung for future, less technically demanding projects.

4. Capacity and Scalability

Wah Shing is operating at 70-80% capacity, leaving less room for rapid scalability compared to Wai Lung, which has significant excess capacity. Wah Shing's higher utilization could limit their ability to react quickly to unforeseen challenges or sudden increases in demand. However, capacity alone cannot compensate for a lack of technical expertise, especially given the delicate nature of E-Chargers.

Insight: Although capacity is important, Spin Master must prioritize technical execution for E-Chargers. Even if Wah Shing is near capacity, their expertise in handling electronic toys gives them a higher chance of success. The risk of overloading production schedules should be mitigated by closely monitoring progress and maintaining open communication channels.

5. First-Mover Advantage

Spin Master's desire to beat a competitor to market adds an additional layer of urgency. In the toy industry, being the first to introduce an innovative product can result in significant market dominance. However, rushing production with a supplier that lacks the necessary technical experience could lead to defective products or delays, allowing competitors to gain the upper hand.

Insight: The first-mover advantage is critical, but not at the expense of product quality. If Wah Shing's technical capacity can ensure a successful launch, Spin Master should prioritize this supplier. Being first to market with a faulty product could damage their reputation more than a slight delay in the launch.

6. Risk Management:

Spin Master must establish contingency plans to mitigate potential risks, such as delays in production or quality control issues. Early and frequent communication with Wah Shing will be crucial to ensuring that the project stays on track.

Insight: To mitigate production delays and quality issues, Spin Master should implement dual sourcing with Wai Lung for non-electronic components to reduce reliance on Wah Shing. Early prototyping, on-site quality control, and regular progress meetings will help identify and resolve issues quickly. Buffer time in schedules and vendor audits will ensure timely delivery and maintain quality. Establishing escalation procedures and planning flexible shipping options will address delays, while regular risk reviews and creating backup molds will prevent equipment failures from causing further disruptions.

Recommendations

After evaluating both suppliers, the recommendation is to choose Wah Shing Electronics Co. Ltd. as the manufacturer for the E-Chargers. Wah Shing's expertise in electronic toys aligns with the technical demands of the product, particularly the need for precision in producing a lightweight airplane with electronic components. Given the tight tolerances for weight and the complexity of the product design, their experience with electronic toys will mitigate the risks associated with production quality. Another option would be to split production between the two suppliers, assigning Wah Shing the electronic components and Wai Lung the plastic parts. This would leverage the strengths of both manufacturers but could introduce logistical complexities.

Immediate solution: Wah Shing can provide the necessary engineering expertise and has the capacity to meet the December 1999 launch date.

Long-term solution: Building a stronger relationship with Wah Shing could benefit Spin Master's future projects, particularly those involving more sophisticated electronic toys.

Finalizing Supplier Selection:

1. Select Wah Shing for E-Chargers due to their expertise with electronics and strong connections with major toy companies.
2. Negotiate Production Terms: Work with Wah Shing to finalize the terms and keep the project on schedule. Set clear communication channels and regular updates to avoid delays.
3. Speed Up Design Adjustments: Focus on quickly resolving any design issues, especially with weight and electronics, to prevent further delays. Schedule regular checks to ensure everything is working as needed.
4. Monitor Production Capacity: Make sure Wah Shing can meet the December deadline without sacrificing quality. If needed, arrange for additional resources to speed up production.
5. Multiple Supplier : Involve multiple supplier other than Wah Shing and Wai lung

Conclusion & Discussion

The case highlights the importance of balancing speed to market with quality and reliability in manufacturing partnerships. In the toy industry, especially with innovative products like the E-Chargers, a supplier's technical expertise can be a critical differentiator. Although cost is always a consideration, ensuring the product functions as intended and reaches shelves on time is crucial to maintaining Spin Master's competitive edge.

Lessons learned

1. Supplier relationships: Maintaining strong relationships with suppliers is key to ensuring flexibility and responsiveness, especially in time-sensitive projects.
2. Technical expertise matters: Choosing suppliers based solely on past relationships or cost can backfire if the technical requirements of the product exceed the supplier's capabilities.
3. Project management: Clear timelines and managing risks associated with delays are vital in product development, especially when working with external manufacturers.

Bibliography

- Ken Mark, John haywood farmer. “Spin master Toys: Finding a manufacturer for e-charger”. Richard ivey school of business