

Enterprising

Introduction

There are many competitive companies which try to make the new kinds of solar powered toys. There for the purpose of this marketing research is to analyze which companies are the main players in the solar powered toy market. There are numerous companies which create this market, so our research focuses on three main companies. After analysis of these companies and their products, we can plan a small business which is related to the product of solar.

Marketing research

Shenzhen KingStarMould Co., Ltd.

Shenzhen KingStarMould Co., Ltd is an important manufacturing firm in China which established in 2007. Moreover, it specializes in the manufacturing of plastic molds and plastic products. In this manufacturing sector there are many types of products and services such as smartphone protection cases, mobile phone accessories, computer accessories, plastic molds, mobile phone chargers, game accessories, pet feeders, solar toys, and USB flash drivers. The size of this company is 1,000-3,000 square meters, and with around 101 to 500 employees. The target marketing of this company is not only in local area but also in different countries all over the world such as North America, South America, Eastern Europe, Southeast Asia, Oceania, the Mid East, Western Europe, Northern Europe, and Southern Europe. The export percentage of this company is high and it is around 81% to 90% every year. In addition, this manufacturing is not only selling the product directly, but they also sell them online. More information is available at: <http://kskingstar.en.alibaba.com/aboutus.html>



Figure1: Building and employees in Shenzhen KingStarMould Co., Ltd.

Qingdao Hitide New Energy Science & Technology Co., Ltd.

Qingdao Hitide New Energy Science & Technology Co., Ltd. is one of the first companies to establish PV solar energy in Shandong Province. Moreover, this firm makes many types of product like solar lanterns, solar table lamps, solar toys, solar flashlights, solar chargers, solar panels, solar street lights, and solar garden lights. This company is moderate with facilities smaller than 1,000 square meters and around 101 - 500 employees. They provide products globally with consumers on nearly every region throughout the world. Every year this company exports between 81% and 90% of its products to regions outside China. More information is available at: <http://hitidesolar.en.alibaba.com/>.



Figure 2: employees in Qingdao Hitide New Energy Science & Technology Co., Ltd.

Jinan Linqun Import and Export Co., Ltd.

Jinan Linqun Import and Export Co., Ltd is the company in China, which established in 2007. It not only is a manufacturer, but a trading company and distributor of its goods too. The business of this company involves five main areas: metallurgical refractory, aluminum decoration materials, solar energy products, machinery and equipment, and green cosmetics. Therefore, the most important products and services in the this company are slide nozzles, wall blocks, porous bricks, ladle lining bricks, castings, fire clays, stuffing sand, metering nozzles, submerged nozzles, solar panels, aluminum-plastic composite panels, flexible solar modules, and refractory. The number of employees work there is above 1000 People, and it also has the quite big size above 100,000 square meters. Moreover the main marketing places of this company are North America, South America, Eastern Europe, Southeast Asia, Africa, Oceania, Mid East, Eastern Asia, and Western Europe. Even if, this company is big, has many employees work there, and many target marketing countries all over the world, and the export is only 11% - 20% every year. We can contact to this company on their web site: <http://www.lqtrade.com/aluminum/>.



Figure 3: Building and solar product of Jinan Linquan Import and Export Co., Ltd.

There are some main players of solar energy powered toys on the market are showed on the table below:

Company's name	Name	Production	Price	Target Group
Shenzhen KingStarMould Co., Ltd.	mini solar car		US \$2.06 - 3.09 / piece	kids
Shenzhen KingStar Mould Co., Ltd.	Mini solar car		US\$2.06 - 3.09 / piece	kids
Jinan Linquan Import And Export Co., Ltd.	12PCS/2.5W portable solar charger / mobile phone MP3 / 4 charger		US \$238.27 - 256.08 / lot	everyone
Hitide(Qingdao) New Energy Source Science&Technol	Solar Toy Helicopter (HTD301)		USD\$ 2.50~2.69 / Piece	Kids and adults

Business Plan

Product

➤ Description

The core of the engineering component of this project revolved around the design and building of a small toy car. Here we have performed market research about solar energy powered toys/collection items on the market. Now we proceed with developing a business plan. The product of our business is the Sun-Racer i15. The Sun-Racer i15 is a small car that can drive automatically when under direct sunlight using electrical power outputted from a solar panel. In this business we make a product enjoyable for both kids and adults. This expands our target group such that it is larger than one of those groups alone. The main purpose of this business is not only focusing on the entertainment for them, but we to provide an educational experience. Ideally this inspires the users and the users will find learning fun.

➤ Specific details

- Place of origin: Belgium
- Brand name: Solar International
- Model number: i15
- Solar power: solar panel
- Weight: 0.87kg
- Color: white
- Size: 40mmx50mmx60mm
- Packing: Plastic box



Figure 4: Sun-Racer i15

Price

It is not easy to launch a new product in the market because most people will not necessarily have confidence of the quality or efficiency of our solar vehicle at first. Therefore, it is not easy to set the price of our product. Based on marketing strategy, we have three different ways to set the price for new product like show below:



Figure 5: Types of marketing strategy

A low price strategy poses no problem to launching our product at the market. However, we encounter many problems such financial crisis and competitors. Too many issues would lead to bankruptcy. Otherwise, if we choose high price strategy, it is also difficult to launch our product too. Therefore, after analysis we choose two-way stretch strategy for our product. Normally, in the market the price of solar car toy is based on the size and their specification. Therefore, the ideal price of the Sun-Racer i15 is €13.42. We would hope to achieve such a price through economies of scale. However, we may have to increase the price based on the costs of materials.

Place

Presently, solar car toys are more popular in different countries especially China, Hong Kong, and other countries all over the world. The main market place for our product is Belgium, so we will launch our product in some shops in Belgium. Additionally, the development team is based in Belgium and will be most prepared to accommodate the needs of this market. Then, we plan to spread the Sun-Racer i15 throughout the world.

Promotion

We have different means through which we can try to promote our product in the market (jingles, newspaper, magazines, radio, TV, direct mailing, the Internet, and more). However, the main channel that we choose to promote Sun-Racer i15 is internet. We have already created a web site which describes the Sun-Racer i15, the price, and other specifications of the product. However, we still will need to spread news of the product. We will make a direct mailing promote by using flyer. On our flyer we will demonstrate our company's name, product's name, price, address, web side, and other descriptions, which flyers will be delivered to customers' house in Belgium. In addition, in order to motivate them to buy our product we will give a special chance like discount 5% to 10 % for this new product, or buy two products they will get one for free.

A promotional webpage we designed is visible at <http://solarinternational.xavierziemba.com>.

Team Name and Logo analysis

Team Name: Solar International

The name of our company is Solar International. We chose this name by combining two concepts that are important to our project and team. Solar is the green energy that we get free from sunlight. Not only one person or country can use this energy, but also the different countries all over the world. The main reason of this choosing is that the different nations can work together to create the new kind of solar products which use the clean energy like the energy from sunlight. Another reason is that customers all over the world should be able to purchase our products and use them too.

Logo

Our logo is derived from our team name. It consists of the world's land ('International') superimposed upon the sun ('Solar'). The green color of

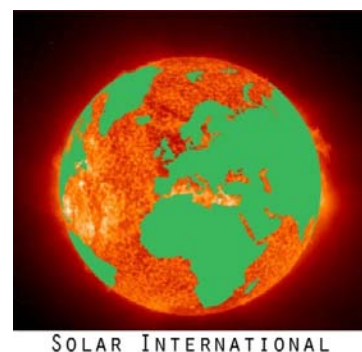


Figure 6: Logo of Solar International

the land connects the viewer with Solar International's concern for the environment. It inspires a feeling in the consumer that Solar International is a 'green' company and is socially responsible.

Cost Analysis

Component	Quantity	Function	Material's Price
Polyoxymethylene (plastic)	120 x 100 1 piece	Use as the chassis and the wheels holder	Free (sample product from the company)
DVD	4	wheels	€9.9 euro for four
Steel ball bearing	4	Bearing	\$11.08 (unused bearings will be sent back)
Steel	1	Axle for the wheels	Free (got from Ziemba household)
The desk foot	1	the holder of the solar panel	€8
Belt	1	For transmission	Free(took from old machine)
plastic mirror	1	Holder of the solar panel	€5
tube of superglue		For fixing the components	Free(got from the Van Hove garage)
Switch	1	Control the motor	Free(got from the Van Hove garage)
Nuts	8	For fixing the components	Free(took from old machine)
Clamp	6	For fixing the components	€3.75
Total Cost for all Components:			€26.65 +\$11.08

Transportation: For transportation we take around €20 for the fuel. Additionally, we estimate the value of workspace (e.g. the FabLab) at €30.

Payer: The main payers of this project are Xavier Ziemba, Cedric Van Hove, Sven Vermeulen, and Miengma Phommainh.

Notes: € (Euro) and \$(US Dollar)

⇒ **Total: €50+€26.65+\$11.08**

1. Proof of Payment

Fortis 230-0048998-33

INFO@HERENT - HUBO .BE

AANT	OMSCHRIJVING	PRIJS EUR	BEDRAG EUR
1	Slangklem Ideal 8-12mm (6)	3.75	3.75
1	SUBTOTAAL		3.75
1	TOTAAL		3.75
	Bancontact		3.75
	420-0357542-07 0115 3.75EUR 1726461		
	TERUG		0.00
	1 BONUS PUNTEN		

Klantnummer : 1524983
Klantnaam : VERMEULEN (aTkyp)
Puntentotaal op 23-04-2011 : 152

3 KASSA 3 23-04-2011 13:54:20 3.54297 77915428

**GARANTIEBEWIJS
OMRUILEN MET KASTICKET**

4/30/2011

McMaster-Carr - Order Detail for 0413...



630-600-3600
630-834-9427 (fax)
chi.sales@mcmaster.com

Receipt

Billed to
ATTENTION: XAVIER YANCY ZIEMBA
F W OLIN COLLEGE OF ENGINEERING
1000 OLIN WAY
NEEDHAM MA 02492-1233

Purchase Order	0413XZIEMBA
Paid	\$57.79
Invoice	82854744
Invoice Date	4/13/11

Shipped to
Daniel Bathgate
1000 Olin Way
MB 187
Needham MA 02492

Information About Your Payment
Credit Card Amex Ending- 1002
Date 4/14/11
Name on Card Xavier Yancy Ziemba

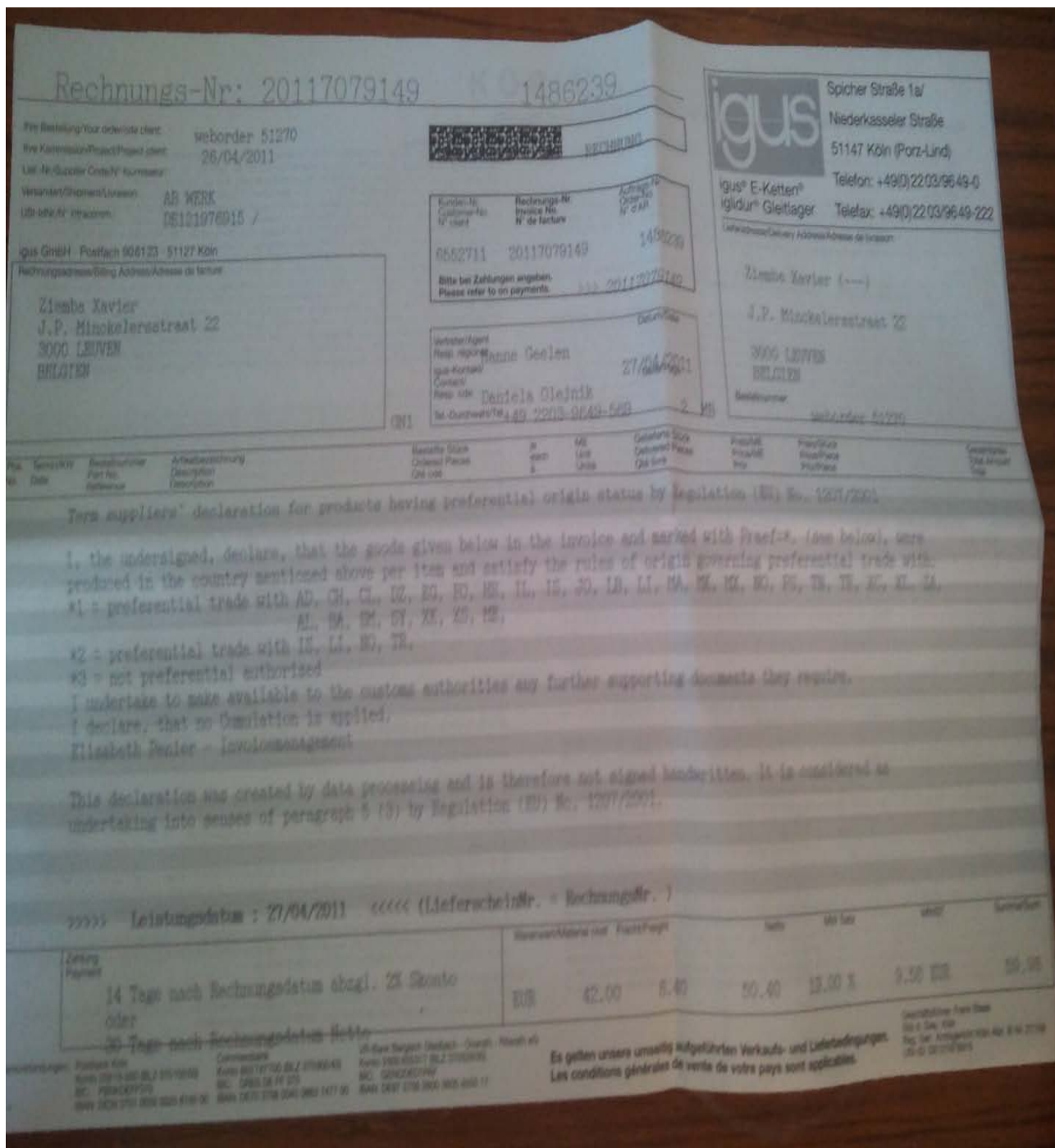
Your Account 190802800

Xavier Ziemba placed this order.

Line	Description	Ordered	Shipped	Balance	Unit Price	Total
1	6383K11 Steel Ball Bearing, Plain Open for 3/16" Shaft Diameter, 11/16" OD, 1/4" W	8	8	0	2.77	22.16
		Each			Each	
2	5972K91 Metric Steel Ball Bearing, Open Bearing No. 608 for 8mm Shaft Diameter, 22mm OD	8	8	0	3.88	31.04
		Each			Each	

Merchandise	53.20
Shipping	4.59
Total	\$57.79
Payment Received 4/14/11	(57.79)
Balance Due	\$0.00

Packing List Shipped	Weight	Carrier	Tracking	
5900537-01 04/13/2011	1 lb	UPS Ground	126028360379877074	Received by Macdonald 4/19/11.



7. Reference:

<http://www.aliexpress.com/product-gs/331638513-mini-solar-car-wholesalers.html>

<http://hitidesolar.en.alibaba.com/product/428329521-209506058/Child Solar Toy Helicopter.html>

<http://lqtrade.en.alibaba.com/aboutus.html>

<http://www.aliexpress.com/product-gs/424328096-2-5W-portable-solar-charger-mobile-phone-MP3-4-charger-wholesalers.html>