Science4you in the UK:

a toy story

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Abstract

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Founded in 2008, Science4you is a Portuguese company that develops, produces and commercializes educational toys. Since day one, the founder aimed to go abroad and conquer new markets outside Portugal. Hence, the company started its internationalization program one year later through exports. Five years after its foundation, Science4you had already opened its first subsidiary in Spain and made the decision to enter the UK market.

The UK market offers great opportunities but at the same time great challenges. The company had the possibility to enter the largest toy market in Europe, with a significant upper middle class and where toys represented a relevant weight on the country's GDP. But, it also had to face a massive direct and indirect competition, huge number of players in the niche of educational toys and different consumer's characteristics.

The following thesis is presented in the form of a Case Study and aims to function as an important tool for class discussion where the strategies and progress of Science4you in the Portuguese and Spanish market can be analyzed, as well as the decision and strategy used to enter the U.K market and the challenges the company had to address.

Resumo

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Fundada em 2008, a Science4you é uma empresa portuguesa que se dedica ao desenvolvimento, produção e comercialização de brinquedos educacionais. Desde o início que o fundador tem como objectivo ir para fora e conquistar novos mercados para além de Portugal. Consequentemente, a empresa começou o seu plano de internacionalização um ano depois da sua fundação através de exportações. Cinco anos depois, a Science4you tinha já aberto a sua primeira subsidiária em Espanha e tomado a decisão de entrar no mercado do Reino Unido.

O mercado do Reino Unido oferece muitas oportunidades mas ao mesmo tempo grandes desafios. A empresa teve a possibilidade de entrar no maior mercado de brinquedos da Europa, com uma classe média alta significativa e onde os brinquedos representam uma fatia relevante no seu PIB. Mas, teve também de enfrentar uma forte competitividade, grande número de empresas no nicho de brinquedos educacionais e diferentes características dos consumidores.

A seguinte tese é apresentada na forma de Estudo de Caso e tem como objectivo funcionar como uma importante ferramenta para discussão da matéria em aula onde as estratégias e o progresso da Science4you no mercado português e espanhol podem ser analisados, assim como a decisão e estratégia utilizada para entrar no mercado do Reino Unido e os desafios que a empresa teve de encarar.

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1. CASE STUDY

Miguel Pina Martins, founder and CEO of the Portuguese toy company Science4you S.A., had the dream of conquering the world with his educational and scientific toys. In 2013, five years after the birth of Science4you and two years after the opening of the first subsidiary in Madrid, Miguel made the decision of entering the largest toy market in the EU, the UK market, where there were already a great number of players operating in the same niche as Science4you. Now, in March 2014, after the results of the previous year came out, Miguel was thinking of the promising market and challenges ahead of his subsidiary in London.

1.1. The Company

Science4you S.A. was a 100% Portuguese company that operated into two distinct business areas: toys and educational activities. It produced, developed and commercialized a wide range of educational toys **(Figure 1)** related with science, chemistry, renewal technologies, geology and mineralogy, distributed by different product lines such as Games&Puzzles, Build&Play, EcoScience, Science, JuniorScience (3 to 5 years old), Animal Planet, QI Activator, Craft4you and Animals4you. Thereby, according to the company's vision, it allowed children to learn while they were playing and having fun.

Toys were the core business of Science4you with 95% of the company's revenues in 2013 (**Exhibit 1**). Educational activities represented the other 5% and included birthday parties, holiday camps, science workshops, scientific entertainment and also experimental science classes in schools, as well as training for teachers. All the toys came with instruction books explaining all the science behind the toy, all the experiments that could be done with it and a bit of the theory involved with the theme. Thus, it allowed children at an early age to be aware and stimulated for the understanding of how scientific methods worked. These booklets were carefully and specially designed to be very simple, interesting and fun. They were very visual with a lot of figures that children could explore and at the same time they made life for the parents easier. Moreover, it was also a way to encourage the parents to play and spend quality time with their kids.

The company was driven by the aim of improving the education standards in society by offering toys and activities that helped children to understand the world around them and learn, with the help of their parents and family, through a product that offered education and fun at the same time.

Figure1. *Source: www.Science4you.pt*

It all started in 2007, in a classroom of ISCTE-IUL when 21 year old Miguel Pina Martins took a raffle from the hat that his professor was holding; inside that hat were 10 different business ideas for further development as an entrepreneurship project.

Miguel thought of using the logo, as a certification of the University, in something more interesting: scientific educational toys. And one year later, on the 30th of January 2008 Miguel founded Science4you endorsed by FCUL, with only €1.125 of his own money and 15 shareholders including students and professors that invested in the project. The money that was missing to reach the €50 thousand of initial investment was obtained through Business Angels and venture capital from InovCapital, within the FINICIA program from IAPMEI[1].

In May 2008 the company signed the partnership agreement with FCUL and in October it was ready to start selling, its first three toys (**Exhibit 2**) – Chemistry 500, First Steps in Science and Wind Energy. At this point Miguel was the only employee in the company and the only person making all the decisions. Thereon, and despite the very serious financial crisis that was felt in Portugal, within 4 years the company achieved a turnover of more than €1 million, in 2012 (**Exhibit 3**). At that time the biggest obstacle was to convince the retailers to dedicate some space in their shops for a few new toys that no one knew anything about, and make them believe that the products had the quality and credibility to be sold in those spaces. It wasn't easy, the company didn't have a consolidated brand yet and the consumers didn't know the company or its products. Hence, these initial steps were critical for the company growth and brand awareness.

The company went from a turnover of €606.183 in 2010 to €1.135.941 in 2011, registering a growth of 147%, a situation that was replicated from 2012 to 2013 with a growth of 146%. Concerning the income statement, in 2013 the costs of goods reached €979.176 and the gross margin was 65%

[1] Institute that supports investment in small and medium enterprises (SMEs)

(**Exhibit 4**). Compared to the previous year, it decreased 10% and this loss of margin was explained by the entry in international markets and by campaigns at the national level. The staff costs amounted to €441.658 and supplies and services €1.144.113. The development of exports and the entrance in the Spanish market contributed to the recent growth. In 2011, Science4you started to export to Angola (September) and Brazil (November) which became one of the largest Science4you markets. In 2013 it opened in London its second office out of Portugal, after Madrid. Miguel decided that London would be a key spot to establish the new affiliate which was supposed to represent a great step for the company.

1.2. Strategy

Since the very beginning this journey started with a discovery of a gap in the market. There weren't any scientific toys in the Portuguese market, and Miguel saw here a concept totally unexplored yet very promising. As an entrepreneurship project, the company was always investigating new ideas and trying new experiences in order to go forward with the process of constant innovation. Science4you invested on innovation in order to come up with new lines of products and different activities and concepts for the children. In 2009 the company only had an offer of 3 different toys and 4 years later it already had 204 different types of products. One of the most significant strategies, regarding the products, was the toy offer especially designed for girls. The outcome was a cosmetic science toy called Perfume Science that automatically jumped to the best seller products list of 2013 (**Exhibit 5**). Regarding the production process, following the CEO guidelines, the products were designed in the Research and Development department and then produced and packed in the Science4you factory (**Exhibit 6**) located in Loures, in the suburbs of Lisbon. Then, the final product delivery was taken care of by TNT, one of the largest transportation companies in the world.

In the Science4you value chain, Miguel considered that Human Resources was the most important asset in the company along with marketing and sales. With more than 70 employees in 2013 (**Exhibit 7**) - including the workers in the warehouse, in the factory and the personnel abroad - with a 28 year old average age, the team was very young and very diversified in terms of background, including graduates in Design, Management, Biology, European Studies, Psychology, Multimedia, Human Resources among others. The CEO considered this diversity to be a great strength for the company. Furthermore, for the purpose of cost reduction, Science4you recruited new employees under the IEFP program[2]. Those internships were 90% financed by the Government, with the possibility of joining the company at the end, depending on their performance.

[2] Instituto do Emprego e Formação Profissional (Institute of Employment and Professional Training): aims to promote entrepreneurship, creation of jobs and the economic growth, through financial support.

In order to reach more consumers and increase Science4you visibility, the company had been regularly present in two of the main International Fairs: *London Toy Fair* and *Nuremberg Toy Fair*, which served the purpose of providing important indicators about the toy sector and where the company exposed its products to retailers and distributors worldwide. Miguel stated "Nowadays, networking is crucial for establishing successful commercial relations, entering new markets and innovating". Partnerships were also a big bet, since the first partnership with FCUL. Science4you realized that it was a strategy with great value. Besides having the partnerships with Universities of Science in countries where Science4you is established – University of Oxford in London and Universidad Autónoma de Madrid in Spain – it has partnerships with several Science Museums and Educational Parks in Portugal and Spain, as well as several companies. In Portugal, in 2013, Science4you had already a partnership with 16 Science Museums and 33 companies, including large Portuguese companies like Sonae[3] and *REN*[4] (**Exhibit 8**).

Another way to develop and promote the brand's name and its quality awareness, was winning awards! Science4you has already won 7 prizes awarded by both national and international entities. The first one was in 2009, the *Young Finicia Entrepreneur Award*, and among others it also reached recognition by the European Commission, European Enterprise Awards and the British Government, with entrepreneurship and internationalization awards. In addition to that, the way Science4you promoted its company was basically word of mouth through TV, newspapers and magazines interviews and also using social networks such as Facebook, YouTube and Twitter. It chose to promote the product and build brand awareness through channels with diminutive costs. And, in order to retain the clients, to maximize repetitive purchase and to reduce seasonality it implemented a loyalty strategy named Scientist Card which consisted of an identification card that would give the client a 10% discount in the next purchase as well as future personalized promotions and campaigns.

The main target was of course children but, for the company, it was important to have a focus on parents; after all they were buying the toys. Thus, it could be said that their main focus was a mix of children from 3 to 12 and their parents. So, it had to worry about the attractiveness of the toy but at the same time about issues like safety and price. Concerning the pricing Science4you had a great diversified offer, ranging from €2,99 [5] to €59,99 [6]. Science4you worked hard in order to be the company with the best quality and the most affordable prices, when compared with its direct competitors **(Exhibit 9)**. However, its main focus stayed in the upper middle class consumers.

[3] See: http://www.sonae.pt

[4] See: http://www.ren.pt

[5] *Mini Rocket*, the cheapest toy of Science4you

[6] *Telescope HD*, the most expensive toy of Science4you

In Portugal the competition barely existed. Besides Science4you the Portuguese market had two more players: **4M Industrial Development** Limited and **Clementoni (Exhibit 10)**; and neither of them had an important role and influence in the Portuguese consumers. Despite these two being important players at an international level, Science4you was still the market leader in Portugal in the niche of scientific educational toys. Apart from that, the largest players in traditional toys and games such as Lego, Mattel and Hasbro could also be considered as a threat of becoming strong substitute products. Mattel owned the licenses of Barbie, Hot Wheels, Fisher-Price and others, whereas Hasbro owned Transformers, Monopoly, Star Wars, Mr. Potato Head, among others.

In the Portuguese market the strategy of Science4you was to consolidate the position of the brand. Regarding the internationalization strategy the aim was to replicate the Portuguese business model: establishing partnerships with local Universities of Science with the goal of getting certified products, establishing protocols with Science Museums in order to offer free tickets in the products, as well as offering several activities related with science. Science4you aimed to become, in the medium long term, a major player in the scientific toys market of countries where it had its subsidiaries –Spain and UK – and then to become a global reference, similarly to what already happened in Portugal.

1.3. Where can we find the toys?

In Portugal, Science4you could be found all over the country. It had three main different distribution channels: big retailers, a small retailer and several stands owned by the company located in shopping centers. Due to the partnership with big retailers such as Fnac, Bertrand, Círculo de Leitores, Staples, El Corte Inglés, Grupo Jerónimo Martins, Auchan, Sonae and Toys r' Us, the company managed to increase its distribution and the number of points of sales as well as to increase the brand's visibility and the products quality awareness. Large retailers represented the main source of revenues with 50,58% in 2013 (**Exhibit 11**). The toys could also be found in other small toy and childcare product stores such as the Portuguese company Sr. Brinquedo. Regarding the direct sales to the end consumers, Science4you had its own stands spread by the country plus the online store [7] which offered a catalogue with all the toys available in each country. It had 17 small stands **(Exhibit 12)** located in the main shopping centers throughout the country aiming to promote the brand's name and catch the children's attention. The stands represented the second most important source of revenues with 31, 75% in 2013. In Spain it had 9 stands located in shopping malls and had established agreements with a few large retailers to sell the toys, such as Fnac.es, Casa del Libro, Animal Party, Beta, Carlin, Dideco, Ler, Poly, Santos Ochoa and Universo Azul. Moreover, Science4you also sold its

[7] Spain: *www.science4you.es*
Portugal: *www.science4you.pt*
UK: *www.science4youtoys.com*

toys in the partner Museums, although the value of the sales was almost insignificant for the company.

1.4. Stay in or go out?

Due to the success in the Portuguese market, and because of its limitations as a very small market, lacking a big upper middle class, the CEO decided that it would be reasonable to start finding new opportunities outside Portugal. In October 2009, Science4you started its program of internationalization through exports to Spain. Later on, in February 2010 Science4you initiated a project called *Internationalization and R&D* with the goal of helping the company's expansion and a strong focus on exporting its main products, especially for the Spanish market. The project was financed by QREN[8] with more than 50.000€. The main goals were to double the volume of international business and to increase the qualified staff, for the purpose of competing in the global toy market.

In September 2010 it started selling in Angola and in November 2010 in Brazil. The process of internationalization advanced to those countries because of the language and similarities between the markets. Later on, it expanded its exports to 14 other countries like Italy, France, Greece, Mozambique, USA, United Kingdom, Sweden, Venezuela, Colombia, Cape Verde, Lithuania, Finland and Cyprus. Miguel stated that in order to maintain the sustainability of the company's growth, internalization was the only way to go. As can be seen in **Exhibit 13**, in 2012 the exports were just 1, 11% of the total volume of sales whereas in 2013 they were 10, 50%.

In June 2011, a major step into internationalization was done through the opening of the first Science4you subsidiary in Spain, with 6 renewable energy toys from the EcoScience product line. In 2013 it already had 117 toys and the best sellers were the Solar Kit, Puzzle 3D T Rex, Perfume Science, Soap Factory, Dig a Dino and Water Science. It grew from an agreement with Fnac and Dideco and also the partnership with Universidad Autónoma de Madrid, which offered help with the development of the product, space for the company's office and the certification of the products quality assured by the University logo. The main reasons to start the expansion throughout the European Union by Spain, besides being one of the five largest European markets - UK, Germany, France, Spain and Italy - were essentially because it was a market easy to reach geographically and the language was not an obstacle. Concerning the exports, Spain represented a large share of the revenues (16.441,47€) and there were strong similarities between both markets economically and socially. In 2012 the business volume of Science4you in Spain alone was 133.581€, representing 12,

[8] Quadro de Referência Estratégico Nacional (Portuguese Program that supported internationalization and qualification projects)

69% of the total. Afterwards, in 2013 it increased its sales to 314, 047€ and in 2014 it was expected to reach 500.000€. However, Science4you faced challenges related to the competition. When it entered the market there were already well stablished companies operating in the niche of educational and scientific toys: Cefa Toys and Clementoni in the big retail, and 4M, Mini Land and Sentosphere in the small retail. The company faced a situation where it was not a pioneer in the market like in Portugal; on the contrary it was only "one more company".

1.5. The Toy Industry in Europe

According to the Toy Industries of Europe (TIE) association, the European Union was the largest toy market in the world in 2011, meeting the demand of 78 million children under 14 and with a total consumer spending of €16.5 billion, these. 1,8 billion[9] were spent in educational toys. The second was the United States with €15.6 billion and in third place was Japan with €4.3 billion, followed by China with €3.9 billion and Brazil with €2.2 billion. In the EU toy sector, small and medium-sized enterprises (SMEs) had an enormous importance since they represented 99% of the 5.000 toy companies and 88% of them had less than 10 employees. Europe represented around 27% of the total toy sales in the globe and within Europe the countries which registered higher sales were the UK, France and Germany. In 2011, the exports for countries outside the EU represented €1.1 billion, the main markets being the USA and Russia. The imports represented €5.5 billion, the majority from China.

The main sale channel in Europe was the retail outlets, such as specialized toy stores which held a market share of roughly 40%, followed by supermarkets. Online sales were experiencing an increasing trend. However, there were differences between countries. While Germany had 13% of online sales, in Spain they only accounted for 0,3% (**Exhibit 14**). The toy market in Europe was extremely seasonal, the majority of purchases occurring during the Christmas period, approximately 60% in November and December. This industry is one of the most dynamic economic sectors in Europe; about 60% of the toys on the market each year were new products. In 2011, more than 90% of the toy companies operating in the EU launched new products on the market. In order to meet the demanding children's needs, the toy industry invested massively in Research & Development, market studies and protection of intellectual property. European families valued more the infant and preschool toys. The second most popular category on the European market was dolls, followed by outdoor and sports, followed by games and puzzles. These four categories represented 50% of total sales in the EU.

[9] Source: EU Commission 2010

The toy industry faced some challenges like the economic recession, the increasing of safety and environmental legislation leading to an increase of testing and administrative costs, the intensification of competition from illegal and fake products, short life cycle of toys and high failure rates of new toys, faster maturity of children and intense competition from electronic entertainment. The demographic developments in EU showed that the society was aging and there were fewer children because the number of children by couple was decreasing. Nevertheless, as an opportunity, for each child the number of toys was greater, coming to a trend of less children and more toys. Lastly, the increasing of the digital gaming and the growth of virtual stores during the years of 2012 and 2013 showed an important trend in the European shopping habits.

1.6. UK Decision/UK Market

There was a reason for Science4you being called like this and not *CiênciaParaTi*[10]. The internationalization to the United Kingdom has always been part of the company's strategic plan. Since day one, Miguel knew that in order to conquer the rest of Europe and later on the rest of the world, he had to go to the UK. This choice was made due to the importance of the country regarding the toy market at both the European and the global level. Basically, the four major reasons for choosing this country were: 1) the English language, because it would reduce the costs of product changes and adaptations for other countries in the future, 2) the fact that the UK market alone represented 25% of the total toy market in Europe, with people spending a lot of money in toys which translated into a great weight on its GDP, 3) Miguel believed that the UK market would be able to open the doors for other significant markets such as Australia, Canada and the USA which together meant more than half of the global toy market and 4) there was a significant and well stablished upper middle class in the country. This decision was made only with the positive references and experiences in the Portuguese and Spanish markets, despite knowing that the UK market had some specific characteristics namely the strong competition and the big number of players.

The UK's total population in 2010 was over 62 million people and the percentage of children between 0 and 14 years old was 17, 5%, with an average of live births per woman of 1, 94, in contrast with 1, 32 in Portugal and 1, 40 in Spain, corresponding to a children's percentage of 15, 2% and 14, 9% respectively (**Exhibit 15**). Concerning the UK toy market, small and medium sized shops were still an important reality, spread throughout the cities and small towns, coming together to fight and survive the big distribution chains. Compared to Portugal, the development of the online market was huge and their every retailer was in direct competition with each other, from independent shops to the big chains, either by direct delivering to the consumer or by *click and collect*. This was

[10] "Science4you" translated to Portuguese

widespread in this market which translated into the possibility of buying the toy online and then picking it up in the shop. Online retailers continued to grow their share in the toys and games market and consumers increasingly preferred to download games and order toys online instead of purchasing them in physical stores. English consumers were very demanding with the final product from the point of view of packaging and content. This was due to the ease of comparison with competitor brands on the different toy distribution channels. They did not look for cheap toys, instead they gave preference to the quality of the products over other features like price. Hence, in 2012 the top selling toy in UK was the LeapPad Explorer tablet costing 67, 65 pounds. Comparing with the top 5 toy markets in Europe, the top selling toy in France and Germany cost in average 10 pounds, in Spain cost 21, 11 pounds and in Italy 39, 46 pounds (**Exhibit 16**). It can also be seen in **Exhibit 15** that the country saving rate of the UK (6.0) is the lowest, compared with Portugal (9.8) and Spain (18.1). In legal terms, there was a lot more bureaucracy in the UK and Science4you experienced huge difficulties in opening a bank account or having telephone and internet installed in the company, since there were a lot more rules compared to Portugal. Also, on the 20th of July 2011, a new Toy Safety Directive (2009/48/EC)[11] was applied in the EU with the aim of reinforcing the safety standards, achieving long-term health benefits and improving the toy's marketing rules. In the technological field there was a greater trend for online purchases, a greater trust from the consumer on the payment methods and a higher penetration rate of smartphones in the market. Economic and socially, it was a multicultural country, especially London, the city that ended up influencing most of the country trends. People had an open mind when it came to trying new things and experiences and they were more pragmatic in their evaluations as consumers (value for money) and in their professional relationships (straight to the point).

In January 2013, Science4you opened in London its second subsidiary with an investment of €500.000. The company initiated its activity with just one person in the UK office - one of the vice-presidents of Science4you, Nuno Gato - located in Knowledge Dock Business Center of East London University, which was considered to be the international center of the toy business. Science4you established a partnership with the University of Oxford with the goal of developing a set of scientific toys and got its logo in the packaging assuring the quality and reliability of the products. Through this agreement the company managed to start selling 14 toys in the UK catalog (**Exhibit 17**), including 7 new toys that were adapted to the English market and previously approved by the University of Oxford along with 7 more that were already commercialized in Portugal but with the packaging and the booklets translated to English. It was also agreed that in the following years new toys would join the catalog with the assistance of the Oxford scientists in terms of new product development and

[11] Source: European Commission (ec.europa.eu)

improvement of the scientific information provided in the booklets. Miguel stated that given the importance of the English market, where the growth forecast was the highest, at the early stage he wanted to gain credibility among large distributors and reach the big names of the market. Science4you managed to sign a partnership with the big retailer Aldi which allowed having the products in more than 600 shops in the UK and Ireland. The company also signed with the specialized toy network Toymaster. Moreover, the toys could be purchased in the company's UK website, Staples, independent shops such as Toy Galaxy and Chelsea Toys, Amazon and in science centers located in London, Manchester and Norwich. For the future Miguel wanted to go further and try to reach other big retail chains like John Lewis and Toys r' us. The toy prices were not considered expensive given the quality of the product and the great number of experiences that each kit provided. The prices were around 10 pounds (about €12) where the most expensive toy was the Microscope costing 14, 99 pounds and the cheapest one was the Ecological Clock costing 8, 60 pounds[12]. All the toys in the company were produced in Portugal, whether to be sold in Spain or in the UK.

In the UK, making the toys a visible product among all the competitors with similar products already commercialized by local and international companies was a daily challenge. Thus, the constant communication with the target market had been a great bet of Science4you. This communication was made through bloggers, reviews about the products and contests using the toys as rewards.

1.7. Competitors in UK

The UK was the largest toy market in Europe and as such it attracted several companies that wanted to grow and gain market share in the EU. For that reason, Science4you faced a huge number of competitors. The company needed to worry about not only the direct competition, operating in the niche of educational and scientific toys, but also the indirect competition, operating in the traditional toys and games market. The British reality was totally different compared with the scenario in Portugal or Spain; Science4you faced the presence of the major international players as well as the several British companies that produced scientific and educational toys. Compared to the 2 competitors in Portugal, in the UK it faced 9 direct competitors such as **Thames and Kosmos**, **4M**, **John Adams**, **Ravensburger**, **Clementoni**, **Wild! Science**, **Grafix**, **Trends UK** and **Galt EDU-Science**. See **Exhibit 18**, **19** and **20** for more information about Science4you competitors.

1.8. The Future

For 2014, Science4you wanted to reach the target of a € 5 million turnover. Accordingly, the company built its business strategy based on the current internationalization processes, with especial

[12] Source: www.Science4youtoys.com

attention to the English market, which Miguel considered to be crucial given the market potential in the UK, despite the strong competition. And, after one year in this market Miguel and the president of the UK subsidiary, Nuno Gato, considered it a good decision, believing it was the right path for the future of the company.

In the national market, in spite of the economic crisis that Portugal continued to face during 2014, Science4you wanted to continue developing the consolidation of its internal structure and continue innovating, in order to achieve the growth projected for the next years. Plus, on the external market, Miguel wanted to enter new markets in addition to those where it had subsidiaries. The company had an order for the USA, the Netherlands and Lithuania. Moreover, the company was also preparing to enter the digital market with a project called MicroDinos that would consist of a game for tablets and smartphones, and a product line called Tech4you that would offer products related to technologies.

EXHIBITS - CASE STUDY

Exhibit 1 – Weight of the business areas on total revenue

	2012	2013	2014P
Toys	1.053.058€	2.661.405€	5.053.848€
Education and Activities	82.883€	127.968€	157.000€
TOTAL Income	1.135.941	2.789.373	5.210.848

	2012	2013	2014P
Toys	93%	95%	97%
Education and Activities	7%	5%	3%

Source: Science4you internal Reports 2013

Science4you turnover projections for the next 4 years

Turnover Projections		
Year	Value	Growth
2014 P	5.210.848 €	87%
2015P	8.225.420 €	58%
2016P	12.650.619 €	54%
2017P	17.869.687 €	41%

Source: Science4you internal Reports 2013

Exhibit 2 – Number of toys

Year	Portugal		Spain		UK	
	New	Accumulated	New	Accumulated	New	Accumulated
2009	3	3	0	0	0	0
2010	8	11	0	0	0	0
2011	49	60	6	6	0	0
2012	61	121	34	40	14	14
2013	83	204	77	117	14	28
2014P	98	302	65	182	58	86

Source: Science4you internal Reports 2013

Exhibit 3 – Evolution of the turnover 2008-2013

Turnover		
Year	Value	Growth
2008	135.205,27 €	-
2009	189.549,26 €	40%
2010	245.028,96 €	29%
2011	606.183,23 €	147%
2012	1.135.941,17 €	87%
2013	2.789.373,43 €	146%

Source: Science4you internal Reports 2013

Exhibit 4 – Science4you income statement, 2013

RUBRICAS	2013	2012
Vendas e serviços prestados	2 789 373 €	1 135 941 €
Subsídios à exploração	122 237 €	42 740 €
Ganhos/perdas imputados de subsidiárias, associadas e empreendimentos conjuntos	- 1 160 €	- €
Trabalhos para a própria entidade	100 055 €	78 465 €
Custo das mercadorias vendidas e das matérias consumidas	- 979 176 €	- 286 303 €
Fornecimentos e serviços externos	- 1 144 113 €	- 461 749 €
Gastos com o pessoal	- 441 658 €	- 251 138 €
Imparidade de dívidas a receber (perdas/reversões)	- 10 698 €	- 2 334 €
Outros rendimentos e ganhos	89 477 €	12 491 €
Outros gastos e perdas	- 20 007 €	- 14 783 €
EBITDA	504 331 €	253 331 €
Gastos/reversões de depreciação e de amortização	- 103 157 €	- 50 128 €
EBIT	401 175 €	203 203 €
Juros e rendimentos similares obtidos	- €	74 €
Juros e gastos similares suportados	- 56 160 €	- 22 602 €
Resultado antes de impostos	345 015 €	180 675 €
Imposto sobre o rendimento do período	- 76 149 €	- 41 161 €
Resultado líquido do período	**268 866 €**	**139 515 €**

Source: Science4you internal reports 2013

Exhibit 5 – Best seller products

Best Seller Products
"Fábrica dos Sabonetes" (**Soap Factory**)
"Fábrica Viscosa - Pega Monstros" (**Viscous Factory**)
"Kit Solar – 6 em 1" (**Solar Kit - 6 in 1**)
"Globo de Plasma" (**Plasma Globe**)
"Ciência da Água" (**Water Science**)
"Escavações T-Rex" (**Dig in T - Rex**)
"Química 1000" (**Chemistry 1000**)
"A Ciência dos Perfumes" (**Perfume Science**)
"Vulcões" (**Volcanoes**)
"A ciência da cozinha" (**The Science of Cooking**)
"Microscópio" (**Microscope**)
"Puzzle 3D - T-Rex" (**T-Rex 3D Puzzle**)
"Carro Ecológico Fuel Cell" (**Eco-car Fuel Cell**)
"Construções de metal - Carro" (**Metal Constructions-car**)
"Casa Solar" (**Solar House**)
"Puzzle 3D - Avião Solar" (**Solar Plane 3D Puzzle**)
"Escavações Stegosaurus" (**Dig in Stegosaurus**)

Source: Science4you internal reports 2013

Exhibit 6 – Science4you company structure and processes

Source: Science4you presentation 2013 (www.pocf.qren.pt)

Exhibit 7 – Human resources evolution 2011-2013

	Total	Graduated	IEFP
2011	13	77%	7
2012	21	80%	9
2013	70+	80%	9

Source: Science4you internal Reports 2013

Exhibit 8 – Partnerships in Portugal

Partnerships	
Science Museums	**Other Companies**
Pavilhão do Conhecimento Ciência Viva	Cachapuz
Museu da Ciência - Universidade de Coimbra	Carris
Centro Ciência Viva do Algarve	REN
Exploratório, Centro Ciência Viva	ISCTE - IUL
Porto Moniz	Sonae
Centro Ciência Viva Estremoz	Clube Brisa
Fábrica Centro Ciência Viva Aveiro	CADTPS
Planetário - Porto	Sumo de Letras
Centro Ciência Viva de Villa do Conde	Barclays
Centro Ciência Viva Tavira	Valorsul
Centro Ciência Viva Sintra	Banif
Centro Ciência Viva da Floresta - Proença-A-Nova	Fnac kids
Museu da Lourinhã	Clube da Água
Centro de Ciência Viva Lagos	Fábrica de Brincadeiras - Animação
Museu de Ciência - Universidade de Lisboa	Ericsson
Centro Ciência Viva de Constância	ANR - comunicação e eventos
	Ginásio da Educação Da Vinci - Lisboa
	Educate
	Núcleo NSO
	A Quinta
	Wook
	Pumpkin
	Benfica
	Presentes.pt
	Primeira Imagem
	GeoCentro
	Weduc
	Mâe Me Quer
	epic - O Reino Secreto
	Ginásios da Educação Da Vinci - Vila Franca de Xira
	Marinha
	Holmes Place
	Refer

Source: www.science4you.pt

Exhibit 9 – Comparison of prices in Portugal

Price comparison	
Product 1 – Chemistry	
Clementoni	**Science4you**
24,99 €	12,99 €
Product 2 - Dig a Dino	
4M	**Science4you**
14 €	9,99 €
Product 3 – Volcano	
4M	**Science4you**
10,53 €	9,99 €

Source: fnac.pt and toysrus.pt

Exhibit 10 – Detailed information about S4Y competitors in Portugal

Clementoni was an Italian company founded in 1963 by Mario Clementoni offering several product lines such as educative games, creative games, scientific games, puzzles, first constructions, family games and early childhood. Clementoni games were translated in sixteen languages and distributed in 56 countries. Its operations were based in Germany, Spain, France and Hong Kong where the company relied on a qualified network of agents and distributors. Similarly to Science4you, Clementoni had always been dedicated to research and innovation. The founder stated: "Play is a serious thing. We should never stop playing, especially when we grow up", and by saying serious he meant that all the games and technologies were developed with the help and advice of experts, technicians, psychologists and educationalists from all over the world. It also used to participate in the main international fairs such as the toys fairs of Nuremberg, Paris and Hong Kong. In Portugal, besides the official Portuguese website[13], we could find Clementoni's products in other online retailers and shops like Fnac, Toys R Us, El Corte Inglés and Pré-Natal.

4M Industrial Development Limited was a Chinese company located in Hong Kong and founded in 1993. It specialized in producing and designing creative and educational toys as well as exporting them worldwide. The major export markets were Eastern Europe, Western Europe, North America, Central/South America, Middle East, Africa, Asia and Australasia. It aimed to make education and learning fun offering a range of science toys and different lines of crafts. 4M also participated in important fairs such as the Hong Kong Gifts & Premium Fair and Hong Kong Toys & Games Fair, where they exhibited their toys and developed their contact network. Since 2003 4M won more than 40 local and international awards, among them Innovation and Creativity Award, Best Toys for Kids

[13] www.clementoni.com/pt

Award from USA and The Best Hobby Toy Award from UK. Several of its science products were endorsed by the University of Cambridge in the UK, the product bearing the trademark of the university on either the packaging or the product itself. In Portugal, 4M was present in several online retailers and physical retailers like Fnac and Toys R Us.

Exhibit 11 – Science4you source of revenues

	2013	%	2014P	%
Large Retailers	1.034.478€	**50,58%**	1.700.000€	**43,00%**
Corporate	176.256€	**8,62%**	405.882€	**10,27%**
Small Retailers	170.964€	**8,36%**	390.000€	**9,86%**
Own Stands	649.481e€	**31,75%**	1.443.848€	**36,52%**
Online	14.118€	**0,69%**	14.118€	**0,36%**
TOTAL	**2.045.297**	**100%**	**3.953.848**	**100%**

Source: Science4you internal Reports 2013

Exhibit 12 – Stands location

Stands Location	
Portugal	**Spain**
Centro Comercial Colombo	Centro Comercial La Gavia
Oeiras Parque	Centro Comercial Plaza Norte
Almada Fórum	Centro Comercial La Vaguada
Cascais Shopping	Centro Comercial Islazul
Alegro Alfragide	Madrid Xanadú
Amoreiras Shopping Center	Zielo Shopping Pozuelo
Centro Comercial Vasco da Gama	Centro Comercial Príncipe Pío
Arena Shopping Torres Vedras	Centro Comercial Las Rosas
Spacio Shopping	Centro Comercial Alcala Magna
Shopping Rio Sul	
Continente Telheiras	
Mar Shopping	
Dolce Vita Tejo	
Dolce Vita Porto	
Norte Shopping	
Forum Algarve	
Aqua Portimão	

Source: www.science4you.pt

Exhibit 13 – Science4you turnover by country and exports (only products)

	2012	%	2013	%	2014P	%
Portugal	907.752€	**86,20%**	2.045.297€	**76,85%**	3.953.848€	**78,23%**
Spain	133.581€	**12,69%**	314.047€	**11,80%**	500.000€	**9,89%**
United Kingdom	0€	**0,00%**	22.530€	**0,85%**	100.000€	**1,98%**
Rest of the world	11.725€	**1,11%**	279.532€	**10,50%**	500.000e	**9,89%**
TOTAL	1.053.058		2.661.405		5.053.848	

Source: Science4you internal Reports 2013

Exhibit 14 – Sales channels in the EU

	FR	DE	IT	ES	UK	G5
Department stores[1]	1.2%	12.0%	4.5%	17.5%	5.6%	6.9%
Discount/variety stores[2]	2.2%	5.2%	4.3%	2.6%	5.5%	4.1%
Mail order catalogues	1.1%	2.2%	0.1%	0.0%	2.6%	1.6%
Online/internet[3]	5.6%	13.3%	1.3%	0.3%	5.1%	6.1%
Super/hypermarkets[4]	39.9%	14.7%	38.6%	32.7%	20%	27.6%
Toy shops[5]	45.0%	41.3%	34.2%	43.0%	33.8%	39.5%
Video/computer games shop	0.1%	0.0%	0.3%	0.1%	0.5%	0.2%
Other types of retailers[6]	4.9%	11.3%	16.7%	3.6%	26.9%	14.0%
Total	100%	100%	100%	100%	100%	100%

[1] *Includes departments stores such as El Corte Ingles, Kaufhof, Galeries Lafayette*
[2] *Urban non-toy specialists (book shops, CD shops, generalists)*
[3] *Includes companies like Quelle and La Redoute*
[4] *Mass merchant stores such as Carrefour, Tesco, Auchan*
[5] *Toy chains and toy shops, e.g. Toys'R'Us, La Grande Récré, Toys Center*
[6] *Non-toy specialists shops (catalogue show rooms, market, others e.g. Argos)*

Source: The European Toy Industry – Facts and Figures 2010

Exhibit 15 – Demographic data from Portugal, Spain and UK

	GDP in 2010 (€1 000 million)	Saving Rate (2009)	Population 0-14 years old (% of total population) 2010	Total population in 2011 (1000 persons)	Live births per woman in 2009
Portugal	173	9.8	15.2	10 637.0	1.32
UK	1 697	6.0	17.5	62 435.7	1.94
Spain	1 063	18.1	14.9	46 152.9	1.40

Source: Eurostat - Eurostat Yearbook 2010 "Europe in Figure

Exhibit 16 – The European toy market in 2012 – Estimated market size and top selling toys

	Market Size 2012 (Estimated)	Top selling toy (value sales)	Average price in 2012	Launch Date
Top five Europe	£9.880bn	V Tech InnoTab tablet	£72.66	Various
UK	£2.947bn	LeapPad Explorer tablet	£67.65	Aug-11
France	£2.731bn	Beyblade Metal Fusion	£10.09	Sep-10
Germany	£2.340bn	Playmobil Advent Calendar	£9.79	Sep-12
Italy	£1.032bn	Cicciobello Bua doll	£39.46	Pre-2010
Spain	£830m	Monster High Assortment	£21.11	Sep-10

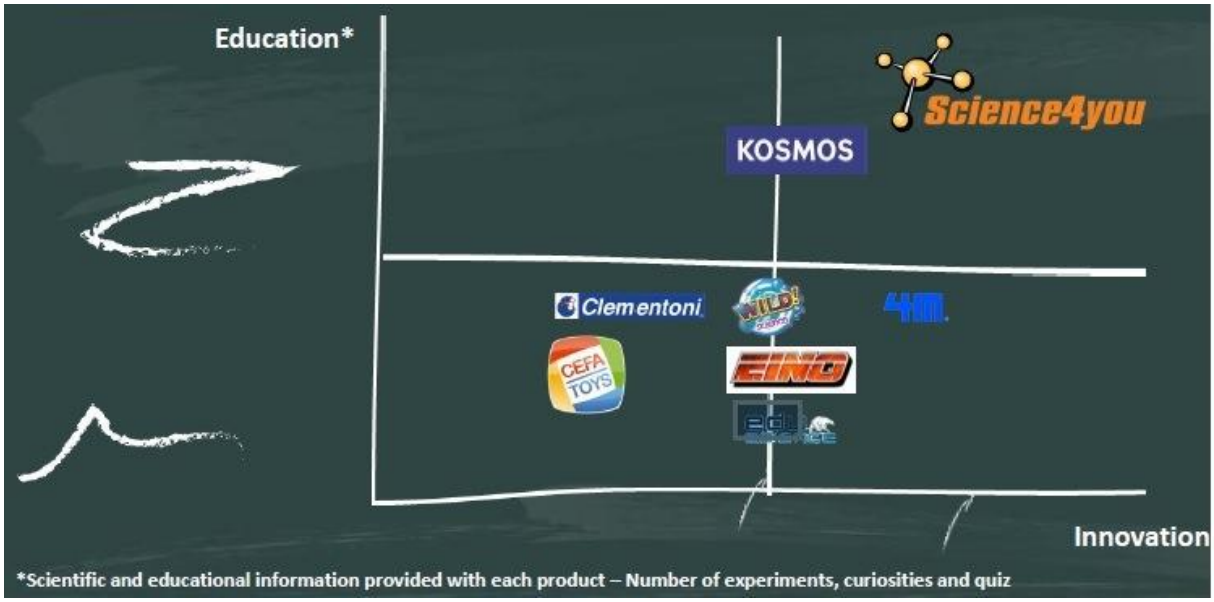
Source: The NDP Group ("Lackluste toy sales linked to lack of new product launches"), 2012

Exhibit 17 – First toys in the UK

Name
Ecological City
First Steps in Engineering
Excavation – Gems
Fossil Excavation - Stegosaurus
Fossil Excavation - T-Rex
Wind Power Generator
Microscope
First Steps in Ecology - Plants (New edition)
First Steps in Construction - House
First Steps in Construction - Castel
Chemistry 1000
Chemistry 400
Ecological Clock
First Steps in Geology - Volcano (New edition)

Source: Science4you internal reports 20013

Exhibit 18 – Science4you and its competitors position regarding Education/Innovation, in the UK



Source: Science4you presentation 2013 (www.pocf.qren.pt)

Exhibit 19 – Detailed information about the 9 S4Y direct competitors, in the UK

Wild!Science: one of the world's leading educational science toy makers was distributed in the UK by Interplay. Around the world, those toys could be founded in Russia, Australia, New Zealand, all over Europe, South Africa, the Middle East, Canada and the USA. Wild!Science offered toys for children over 6 years old, boys and girls, with medium/high prices, divided into 8 product lines: science, chemistry, physics, biology ecology, geology, meteorology, cosmetic science and magic spy science. Its best sellers included the award winning Perfume Laboratory, Bath Boom Factory and Magic Nail Lab. The company was a usual presence in the major international toy fairs and won several awards such as Best Learning Toys[14] and Top Ten Toys for Teens[15].

Thames and Kosmos: it was founded in 2001 with the goal of improving the level of scientific education in an informal way. It offered more than 120 science and experiment kits in 13 product lines: sophisticated science, chemistry, biology, physics, little labs, astronomy, classic science, alternative energy & environmental science, earth science & natural history, ignition series, construction series, technology & electronics and fun & fundamentals. The products could be found worldwide in retail stores, museums stores, online stores and specialized toy stores. Furthermore, it had collected several awards throughout the years since 2004, including Best Green Award from

[14] Given by *Great Schools' Golden Apple Award*
[15] Given by *Good Toy Awards*

Dr.Toy in 2013 and Parents' Choice Gold Award in 2012. Thames and Kosmos had also some partnerships which added value to their mission such as the partnership with the Toy Industry Association, the Museum Store Association, the National School Supply and Equipment Association and the American Specialty Toy Retailing Association.

John Adams Toys: with a more than 40 year long history, John Adams was not specialized in the niche of educational scientific toys, offering different product lines like Dolls & Role Play, Traditional Games & Puzzles, Outdoor Toys & Games and Swimming aids. The categories where this company became a threat to Science4you were Science & Discovery, Construction Sets, Art Craft and Activity and Magic & Tricks. The strongest points of this well-respected player of the toy industry were the development and marketing of innovative products for children of all ages and the focus on a great quality. The products could be found in online retailers like Amazon and in big retailers like Toys' r us.

Ravensburger: it was a German company known by its variety of puzzles and games which exported its toys for more than fifty countries. Although it didn't compete directly with the scientific toys from Science4you, the products had a strong educational component and could work as perfect substitutes.

EDU-Science: it was a Chinese company from Hong Kong that designed, developed and produced educational and experimental toys. EDU-Science offered a huge range of product categories such as Telescope, Microscope, Binoculars, Science kit, Space Science, Electronic, Globe, Magnifier, Nature Science, Eco Science, Cool Science, Education, Games, Da Vinci (construction toys related with Leonardo Da Vinci inventions), Animal Planet, Jr. Scientist, Tree of Knowledge, Dinosaurs (Puzzle 3D) and Jr. Chef (Toys and experiments related with cooking). The aim was to provide a higher level of children's education ensuring high levels of safety and quality. The production was made in China and the products were distributed worldwide. Along with many toys, science guides were provided to explain the toys and the science behind each experiment. There was no distinction between girls or boys since most of the toys were unisex and only some of them were more focused on boys. Regarding prices, it had a wide variety of choices, from really cheap toys to expensive ones (more than €130).

Grafix: was an award winning brand owned by RMS International. The company offered a wide range of toys for boys and girls, making it available for wholesale and focused on 3 main activities: design & innovation, operation & logistics and quality control. The product lines included categories such as Weird Science, Arts & Craft activities, Licensed Products, Glow in the Dark, Outdoor Games, Puzzles, Science Experiment, Artist Range, Plush and BlockTech MetalTech (building toys). It was headquartered in the UK and had subsidiaries in Hong Kong, the USA, the Netherlands and Shanghai.

The toys could be purchased on the Grafix website as well as in several retailers like Toys' r Us, Tesco, Primark, The Entertainer, Argos, Asda, The Works, play.com and LittleWoods.

Trends UK: was founded in 2012 and managed to become the UK's number 1 science product supplier[16]. It incorporated brands like Trends Science, Discovery Channel, Haynes, Spyz, Wowwe, Monster High, Color Me Mine, Disney Frozen, Doodle Bear, Barbie and Glitza that provided experiences for children, boys and girls, related with science, art & craft and spy activities. Besides that, it also offered a category specialized in gadgets for adults and its products could be found in more than 30 countries.

Exhibit 20 – Trends UK retailers

Trends UK Retailers			
Amazon	Debenhams	Booths	WH Smith
Boots	Argos	Fenwicks	The Entertainer
Handpicked Co	Harrods	Hobbycraft	Toymaster
JD Williams	JG Direct	John Lewis	Tesco
Littlewoods	Menkind	Modelzone	Smyths
Shop Direct			

Source: http://www.trendsuk.co.uk

[16] Source: http://www.trendsuk.co.uk/about

2. LITERATURE REVIEW

2.1. Internationalization

Accordingly to **Barringer, Bruce R. and Greening, Daniel W. (1998)**, internationalization "involves expanding a firm's business from its original location to one or more additional geographic sites and is particularly well suited for firms that cannot expand in their present location but believe that their products or services may be appealing to consumers in other markets". For **Roemer, M. K. (2015)**, the meaning of internationalization includes everything that relates to international. One of the major growth factors in companies is its ability to expand geographically, especially for SMEs that have no longer growth opportunities in their locations **(Jane W. Lu and Paul W. Beamish, 2001).** Moreover, a growing number of firms are expanding their businesses early in their life cycles **(Zahra, Shaker A. ; Ireland, R. Duane ; Hitt, Michael A., 2002).** Business managers have all interest in developing great projects for global market as a way of boosting corporate growth, improving competitive position, strengthening financial performance, ensuring the company survival in a long-term **(Theodosiou, M., & Katsikeas, C. S., 2001).** Firm's geographical expansion comes with many advantages but also with great challenges. For small businesses it is even more difficult because the manager has to deal with an existing business and a start up at the same time **(Barringer, Bruce R. & Greening, Daniel W., 1998)**, since new subsidiaries have similar challenges as start-ups: (1) they need to build relationships with stakeholders, (2) need to establish their legitimacy, and (3) need to recruit and train new employees for the new operations **(Jane W. Lu and Paul W. Beamish, 2001)**. On the other hand, geographical expansion allows subsidiaries to create and exploit knowledge facilitating a learning process and accomplish positive returns by developing its competences and resources, allowing the firm to grow **(Zahra, Shaker A. , Ireland, R. Duane ; Hitt, Michael A.,2002).** The notion of internationalization is evolving and becoming more important and complex, but at the same time it is losing its meaning, becoming a more confused and misunderstood concept **(Knight, J., 2011).**

Although many authors indicate that there is insufficient research on the subject of internationalization of small and medium companies, **Morrison, Alison; Breen, John & Ali, Shameem (2003)** defend that if a SME wants to internationalize it needs to join several factors such as "owner-manager ambitions, intentions, and competencies; internal organizational factors, region-specific resources and infrastructure; and external relationships and network configurations".

Moreover, a study conducted by **Ibrahim, A. B. and Goodwin, J. R (1886)** points out that the success of small businesses and its overall performance is determined according to its rate of return and the

number of years in the market. That being said, a successful SME has a higher rate of return than its competitors, with the same size and business area, and has been in the market for five or more years. Also, **Ibrahim et al (1886)** enhance two more important success factors such as entrepreneurial behavior and management competencies. On the other hand, **Morrison, A., Breen, J., & Ali, S. (2003**) concluded that the inhibiting factors (i.e lack of ambition and vision, weak power position within the industry sector and markets, mature position in life-cycle, etc.) need to be taken into account when talking about small business growth.

2.1.1. Entry Barriers

Every time a company decides to enter a market it is making an investment under uncertainty and the cost of this decision is sunk **(Caves, R. E., & Porter, M. E., 1977).** Previous studies advocate that entry barriers have a positive effect on the new entrant sales growth but also have negative effect on the new entrant profitability. **Robinson K. C. & Phillips McDougall P. (2001)** point out three important barriers to entry that affect profitability, sales growth and shareholder wealth creation: economies of scale, capital requirements and product differentiation. Most firms experience uncertainty when they decide to go abroad. The lack of knowledge about foreign markets and operations comprises a great barrier to the development of international operations. In order to reduce these issues, the Uppsala model states that the international involvement of a firm is made gradually through small steps: first it starts exporting via independent agents, second it establishes a sales subsidiary and finally it can begin producing in the host country **(Johanson, J. and Vahlne, J. E., 1977)**. The other assumption of the model is related with the proximity of the countries: firms experience expansion first with nearby countries then they start to move further away **(Barkema, H., Bell, J., & Pennings, J., 1996)**.

2.2. Toy Industry

The toy industry has changed a lot over the years, video games are the big trend and fill the must-have list of parents and children. Furthermore, children's purchasing power is growing. Toys are one of the world's oldest consumer products and the toy industry is a mature industry with a high concentration of manufacturers in the market, where the minor players have to compete on new product development since they lack the benefits of the big players such as economies of scale, brand recognition and the resources necessary to secure licensing agreements. Furthermore, this industry is also characterized by product innovation, short life cycles, fad-driven products and high cannibalization rates **(Johnson, M. E., 2001).** Furthermore, **Calvert, S. L. (2008)** points out two important trends affecting children as consumers: first their income and power to influence parent's purchases has increased over the years, with youths of today shaping the buying patterns of their families and second, the increasing number of television channels and the technology development

led to smaller viewers for each channel, generating "a media space just for children and children's products". Plus, children especially under eight don't have cognitive skills to understand the persuasive power of television and online advertisement, making them an easy target for the firms.

The toy industry is an industry with intense competition particularly during the summer months when six blockbuster movies are expected to be released and during this period the industry experience shorter promotional windows and higher prices **(Benezra, Karen, & Warner, Berhard, 1997)**. According to **Richard Gottlieb (2009)**, the rules to have a successful strategy in the toy industry are include: spend more on R&D, engage in pre-marketing, replace the term 'traditional toy' and better understand today's kids. Whereas, **Johnson M. E. (2001)** advocates that the two central challenges of this industry are managing supply and managing demand and in order to have success, companies need to figure it out how to manage the typical demand uncertainty and risks of the toy industry, for example: (1) reducing seasonality and new product adoption risk through licensing, (2) increase product life by matching product and channel strategies, (3) reduce seasonality by increasing number of channels and (4) smoothing demand and building longer life products through variety strategies.

Fisher (1997) makes the comparison between functional and innovative products, where he claims that the innovative products, including toys and clothing, have an unpredictable demand, a small product life (3 months to 1 year) and high product variety (often millions of variants per category). Besides, toy demand has become recently extremely unpredictable and fashion driven which can lead to higher forecast errors and excessive inventory **(Wong, Chee Yew, Arlbjorn, Jan Stentoft, Hvolby, Hans-Henrik, & Johansen, John, 2006)**. For example, Christmas is the toy industry's principal period of the year with 40% of retail sales happening in December **(Ben Carter, 2003)**. Moreover, there are five different types of uncertainty in fashion driven industries, first, the uncertainty about the rate of arrivals of customers to the store, second, the actual number of customers that arrive to the store during the season and their exact times of arrival, third, the statistical characterization of the maximal prices that customers are willing to pay for the product, fourth, the individual consumer's purchase decisions based on the maximum prices they are willing to pay and fifth, the state of the market **(Aviv, Yossi, & Pazgal, Amit, 2005)**.

2.2.1. Educational Toys

Most of the science kits in the toy stores teach little science or don't teach science at all; they only include the instructions to construct the toy, leaving out the explanation of the science related to the toy or behind its functioning **(Silver, Marc, & Flynn, Mary Kathleen, 1994).** Educational toys are more

challenging than traditional toys. First, they work as a paradox in children minds: if they think a toy is supposed to be good for them, they don't believe it can be fun. Second, they are more expensive and third its marketing is trickier. Learning toys stores can't say "buy our wares to keep the kids quiet", instead they have to say "buy our stuff to help get the kid into MIT" **(La Franco, Robert, 1994).** An example of a learning toy that succeeded in the UK was the LeaPad from US toy firm LeapFrog, which combines education and entertainment. Since its arrival in the UK in 2000, the traditional toy firms such as Fisher-Price and Lego were forced to re-evaluate their products and give greater importance to the use of technology **(Ben Carter, 2003)**. Also, Toys r' us started to give a lot more emphasis to educational toys, taking them from the back of the shelfs and putting them out in display **(La Franco, Robert, 1994)**. Nevertheless, there are some authors that don't agree with the distinction between educational toys and the rest of the toys. **Goldstein, J. H. (1994)** states in his book the opinion of **Birgitta Almqvist** which advocates that if there are educational toys, the other toys would be noneducational , which she claims being a false conclusion. **Birgitta** also disagrees with the assumption that a toy arouses the same reactions in every child.

2.2.2. Children vs Gender

Francis, B. (2010) discovered that boys tend to have stereotypically gendered masculine choices whereas there is a far greater diversity in girl's choices; some of them are considered androgynous choices since they are marketed for girls and boys. Moreover, in the category of educational toys, didactic information and developing construction and literacy skills can be identified in the boys' choices. However the same characteristics are lacking in the girls choices (Table1. Favourite toys). A study conducted by **Cooper, Lou. (2011)** showed that girls between eight and eighteen years old consider mobile phones their most important piece of kit because it comprises several tasks such as internet searches, email, online chat, social networking and gaming.

Table 1. Favourite toys

GIRLS	BOYS
Cuddly toy (bunny x2; cow; monkey; cat; elephant)	Toy cars
Bratz dolls	Power Rangers models
Toy doll (baby)	Thomas the Tank Engine engines and set
Princess books	Thunderbirds models
Skipping rope	Star Wars lego
Rag doll ('Mrs Queenie')	Toy jet plane (HMS Belfast)
High School Musical microphone	Mario DS Lite (Nintendo game console)
Dora the Explora computer	A football
Barbie horse	Light sabre
Hairdresser's kit	Building bricks
My Little Pony	'Little People' (any figure)
Spiderman figure	Transformers
	Ben 10 figures
	Barney the Dinosaur
	Lego

Francis, B. (2010). Gender, toys and learning

2.3. Pricing

Price is often seen as a significant management tool in terms of strategy and tactic since it has a strong effect on product positioning, market segmentation, demand management and market share **(Clark, T., Kotabe, M., & Rajaratnam, D., 1999)**. International pricing decisions are crucial for the business planning. It has a direct effect on the firm's revenue and helps to establish a competitive advantage positon in the market, regardless of product or industry. Therefore, managers waste a lot of time taking into account a large variety of factors, such as internal and external factors. The first internal factor managers look at is the internal cost structure translated into the cost of production or marketing. Furthermore, factory capacity utilization, market contribution rate and international experience constitute important internal factors as well. Finally, **Forman H. & Hunt J. M. (2005)** concluded that the key external decision-making factors are switching costs, price sensitivity of customers and entry barriers. Some firms that go abroad also choose the strategy of international price standardization which depends on several determinants. **Theodosiou M. & Katsikeas C. S. (2001)** suggest in their study that the level in which companies are willing to standardize their international prices depends on the similarity between the home country and the countries where their subsidiaries are installed, concerning consumer characteristics, economic conditions, legal environment and the stage of the product life cycle.

2.4. Competitive environment

2.4.1 Competitive Advantage

International firms are strongly influenced by their home country in terms of international competitive performance. Before going abroad firms develop within a domestic context and the home country is crucial in shaping the "identity of the firm, the character of its top management, and its approach to strategy and organization, as well as having a continuing influence in determining the availability and qualities of the resources available to the firm" **(Grant, R. M., 1991)**.

Firms reach competitive advantage through constant innovation, including new technologies and new ways of doing things. Moreover, a firm's capability to ensure a sustainable competitive advantage in international markets is based on skills and assets created in the home country: in other words, it is influenced by its national competitive advantage which is based on four determinants that constitute Porter's theory called "The Diamond of National Advantage", although almost any advantage can be imitated. The four determinants that allow firms to constantly innovate and maintain the competitive advantage are: (1) Production factors conditions, (2) Demand conditions, (3) Related and Supporting Industries and (4) Firm Strategy, Structure and Rivalry. Hence, demanding local customers, strong domestic rivals and aggressive home-based suppliers can pressure firms to

innovate faster **(Porter, M. E., 1990)**. Also, **Barney, J. (1991)** ensures that for a firm to have a sustainable competitive advantage over time its resources and capabilities have to comply with four conditions: they have to be **valuable**, **difficult to imitate**, **difficult to substitute** and **rare**.

Nevertheless, **Peteraf, M. A. (1993)** suggests a different model with four different conditions that ensure a sustained competitive advantage known as "Resource-Based View". This model includes heterogeneity within an industry (superior resources), ex ante limits to competition, ex post limits to competition and imperfect resource mobility.

2.4.2. Porter's Five Forces

Porter, M. E. (1979) developed a model to measure the degree of competition in a certain industry based on five forces: **the threat of new entrants**, **the bargaining power of customers**, **the bargaining power of suppliers**, **the threat of substitute products or services** and **rivalry**.

The threat of new entrants translates into the possibility of new entrants to gain market share and this threat depends on six major barriers to enter: economies of scale, product differentiation, capital requirements, cost disadvantages independent of size, access to distribution channels and Government policy. The bargaining power of customers occurs when customers have the power to decrease prices and demand high quality or more service. The bargaining power of suppliers happens when they can raise prices or reduce the quality of the products and services. Threat of substitute products or services put a ceiling on prices which lead to a loss on the industry's potential, limiting the profits and the chance to growth. Lastly, rivalry causes firms to fight for their position in the market. An industry has an intense rivalry if there are numerous competitors or competitors are approximately the same size; there is no differentiation or switching costs; fixed costs are high or the product is perishable; there are strong exit barriers; the capacity is normally amplified in large increments and if the rivals are very different from each other in terms of origins, strategies and "personalities" (**Porter, M. E., 1979)**.

2.5. Product Differentiation and Cost Leadership

Dickson, P. R., and Ginter, J. L. (1987) defined product differentiation as "a product offering is perceived by the consumer to differ from its competition on any physical or nonphysical product characteristic including price". Product differentiation has two effects on demand: (1) increase brand loyalty and (2) broaden the appeal of the product in consumers' minds. Thus, this strategy enables to decrease the product's price elasticity of demand and the volume of the sales. Nevertheless, the impact of these effects depends on three contingencies: the firm's ability of differentiating its product, the competitive environment of the product market and the level of commitment

consumers express towards rival products (**Hill, C. W., 1988).** Following this strategy, consumers are more willing to buy the product at a higher price. Cost leadership strategy is when a firm has a sustainable competitive advantage in its cost structure which translates into lower prices and higher volumes of sales, leading to higher economies of scale when compared with competitors. This strategy is more advantageous for late entrants than for pioneers and early followers because they can learn from pioneers' mistakes and save on the costs of learning how to enter the new business, therefore, they face less barriers to enter. It is also considered the best strategy to gain market share **(Coeurderoy, R. & Durand, R., 2004)**. Moreover, **Amit, R. (1986)** reinforces this idea by proving in his study that the investment on the cost leadership strategy should only occur in a presence of learning in order to have a long-lasting cost advantage. In the absence of learning, the firm cannot reach long-lasting advantages therefore, it doesn't have incentive to invest.

Even though **Porter (1980, 1985)** claims that differentiation and cost leadership are two different approaches in creating a sustainable competitive advantage stating that "achieving cost leadership and differentiation are usually inconsistent, because differentiation is usually costly", **Hill, C. W. (1988)** counters by saying that "the combination of differentiation and low cost may be necessary for firms to establish a sustainable competitive advantage" concluding that differentiation can be a way of achieving a cost leadership position or combining the two simultaneously may be the only way of keeping a sustainable competitive advantage. However, there are some contingencies affecting the compatibility of differentiation and cost leadership such as the extent to which costs reduce when increasing volume, since the direct effect of differentiation is to increase unit costs and the extent to which spending on differentiation significantly increases demand **(Hill, C. W., 1988)**.

3. TEACHING NOTE

3.1. Teaching Objectives

This case study shows the evolution of S4Y in terms of strategy, business development and its steps towards an internationalization process. It was designed for management students taking classes in the field of Strategy and the academic purpose is to analyze the internationalization strategy to the UK adopted by S4Y, using the knowledge learned in class in order to apply it in a real business case.

Students should be able to identify the strategy and competitive advantage of Scienc4you in Portugal and Spain, as well as analyze the pros and cons of the decision of entering the U.K. market and make recommendations for the future.

In order to analyze the case, students can use tools, frameworks and content given in classes, such as, Porter's 5 Forces, SWOT Analysis, the Hofstede cultural dimensions, Porter's Generic Competitive Strategies, sustainable competitive advantage concept, Industry life cycle, Porter's Diamond and internationalization drivers, among others that the instructor may find suitable.

3.2 Assignment questions & Analysis

1. What was the initial strategy of Science4you for the Portuguese market?

Science4you was a pioneering company in the scientific educational toys market and managed to become the market leader in Portugal. To achieve such position, and especially in times of crisis, the company came up with some important strategies in several areas of interest:

Product: the product itself works as a differentiation strategy since in Portugal the competition is barely any. Apart from this, the toys also included the **instructions books** which were very complete in explaining all the science behind the experiences provided by it and the theory about the theme. Furthermore, the **logo of the Science School of the University of Lisbon** in every toy ensuring the quality of the product was considered to be an important competitive advantage. Lastly, the **toy offer designed especially for girls** allowed the company to diversify its offer and broaden the customer portfolio. Some of the toys became best sellers, for example "The Soap Factory" and the "Perfume Science".

Partnerships: another important competitive advantage is the **partnerships** that S4Y have with the Universities, Science Museums, big retailers and other key companies. This allowed the company to

reduce costs, grow faster, utilize the laboratories of the Science School, ensure the quality of the products through the logo of the University in the products, and get cheaper promotion.

Marketing and Promotion: 5% of the company's business was dedicated to **educational activities** and this was a smart move because it helped create brand awareness in schools and holiday camps as well as worked as a powerful marketing tool for the kids and the parents, through birthday parties and science workshops. The company also followed the trends and become massively active in the **social media**, namely in Facebook, Twitter and YouTube. Furthermore, a **website** was available with information about the company (history, shop locations, publications about the company, information about awards and the latest news) and a catalogue with all the toys available and its respective prices.

Research: due to the partnership with FCUL, S4Y is allowed to use the facilities and its laboratories. It enables the company to investigate new ideas and concepts, try new experiences and be in **constant innovation**, coming up with new lines of products and activities. The company went from three toys in 2009 to 204 toys, just four years later.

Cost Reduction: Apart from the benefits of having a partnership with the Science School of the University of Lisbon, that allows them to have their offices there and use the laboratories and equipment without extra costs. S4Y also took advantage of the IEFP program where 90% of the interns' salaries were financed by the Government.

Retention/Loyalty: in order to retain the clients, incentive repetitive purchase and fight seasonality, Science4you created an identification card named **Scientist Card** to give the junior clients that would allow them to have discounts and access to personalized promotions and campaigns.

Team: the characteristics of the team were crucial for the success of the company. Science4you had a very **young and diversified team** in terms of backgrounds, with an age average of 28 where 80% were graduated.

As a conclusion, the business strategy of S4Y can be considered as a Blue Ocean strategy. The company adopted both **product differentiation** and **cost leadership** approaches to achieve a sustainable competitive advantage in order to open a new market place and create new demand. In one hand, Miguel found a gap in the market and offered educational toys that were unique in the Portuguese market with a superior quality, but on the other hand, they managed to reduce costs in

order to reach the most affordable prices. The CEO did a smart choice because this combination of approaches works in Portugal given the consumers' characteristics: price sensitive and the lacking of a big upper middle class. It is successful because it simultaneously attracts large numbers of consumers while raising the cost of competition, making the competition irrelevant **(Chan, K.W. & Renee, M., 2011)**.

2. What is your evaluation of the internationalization efforts of the company, namely for the Spanish market?

The company's international strategy was to replicate the Portuguese business model:

(1) Establishing partnerships with local Universities of Science, to get the logo on the products;
(2) Establishing protocols with Science Museums in order to offer free tickets in the toys;
(3) Offering several complementary activities;
(4) Setting small stands located in shopping centers as points of sale.

In Spain, it opened the first subsidiary in June 2010 through an agreement with big retailers such as Fnac and Dideco and a partnership with Universidade Autónoma de Madrid that was very important since the University offered help with the development of the products, space for the offices and released the logo that worked as a certification of quality. Moreover, similarly to Portugal it opened a few stands located in shopping centers, nine in total.

Despite not being a pioneer in the Spanish educational toys market, this strategy made sense for several reasons:

- Spain is one of the five largest toy markets in Europe.
- It represented a large share of revenues, concerning S4Y exports (16.441, 47€).
- It is a country easy to reach geographically.
- The language was not an obstacle.
- Strong similarities between both markets economically and socially (**Exhibit TN 1**), namely in terms of consumers' characteristics.

Spain was a successful move in terms of revenues and sales. It managed to generate profits and grow its turnover each year and projections continue to be optimistic, the turnover will continue to grow to 500.000€ in 2014 (**Exhibit 12**). However, it faced some competitors that were already well established, operating in the niche of scientific and educational toys, and S4Y couldn't gain importance in the market. It was just "one more company". Nevertheless, from my point of view,

Spain never was the final objective; it was just the first step to gain international experience and learn what was necessary to reach the long term goals of further internationalization. It worked as a preparation to enter the British market. Therefore, I think that in the future S4Y is probably not going to invest a lot more in the Spanish market to evolve its market share and presence in the market. All the efforts are going to be concentrated in the UK subsidiary.

3. What are the main differences between the Portuguese and the English market?

There are three major differences between the two markets: the **size** of the market, the **consumers' characteristics** and the **competition** in the toy sector. The UK's population was six times bigger than the Portuguese with a higher percentage of children (17,5% v.s 15,2%).

Compared to Portugal, in the UK the traditional trade was still very important. There were several small and medium sized toy shops spread throughout the cities and small towns that faced the big distributions chains and survive in the market. On the other hand, the online market was much more developed when compared to Portugal. Both small shops and big chains adopted the strategy of online shopping with direct delivering to the consumer or *click and collect*, because online purchases was a greater trend in UK. Concerning the consumers' characteristics, they were very demanding with the final product in terms of packaging and content, given the wide-ranging offer from the huge number of players in the market and the strong competition between them. In the UK there was a much more significant and well established upper middle class and British consumers were not price sensitive; they valued the quality of the products over other features like price, while Portuguese consumers were very price sensitive and have the power to lower the prices. UK people were heavy consumerist especially for new and innovative products; for them what is different is attractive! UK's saving rate was 6.0 while the Portuguese saving rate was 9.8. Moreover, regarding the legal environment, there was a lot more bureaucracy in the UK compared to Portugal, when we talk about the rules of opening a company in the country.

According to the Offstede website (**Exhibit TN 2**) I can conclude that Spain is much more similar to Portugal socially and culturally than the UK. Concerning the six dimensions used to evaluate the difference between each country culture, the dimensions where Portugal and the UK differ more are Individualism and Uncertainty Avoidance. Portugal is classified like a collectivist country where loyalty and strong relationships are considered to be important values within the society. On the other hand, the UK is considered one of the most individualist countries where people just think about their own personal fulfillment and interests, individually. That is why Portuguese people are a

lot more likely to become loyal to a brand or company than British people. Moreover, the UK has a really low score on Uncertainty avoidance when compared to Portugal (35 vs 99). It reveals that while Portuguese doesn't like to risk and don't feel comfortable with the unknown, British are more open minded and receptive to new things and situations, therefore, British consumers are more likely to buy and try new products and experiences. Therefore, S4Y needs to have different strategies for both countries. It should invest a lot more in R&D and innovation in the UK than in Portugal to come up with new and better (higher quality) toys more often, in order to attend the consumers' needs, keep them interested in the brand and be a step ahead from the competitors. While in Portugal it should invest more in the complementary activities such as birthday parties and workshops in schools in order to have a higher level of contact with the children and gain their loyalty towards the brand.

4. Describe the competitive environment in the UK.

The toy industry is an industry with intense competition and while in Portugal the competition was barely any, with just two direct competitors which didn't have much importance in the market, in the UK, S4Y had to deal with 9 strong players in the educational toys sector that were already well established in the market. Apart from the direct competition, companies like Lego, Mattel and Hasbro that could work as substitute products becoming an important indirect competition to take into account, also because these big players were starting to evolve in the world of technologies and have a strong power on influencing the market.

In order to evaluate the degree of competition in the toy industry in the UK, I used the Porter's 5 forces model and concluded that the degree of attractiveness of this industry is **low**:

Threat of new entrants: is medium. There are not many barriers to entry that prevent other companies to enter the market. The initial investment is not that high and there are no switching costs. Nevertheless, the market was already saturated and the degree of competition could work as an entry barrier. Also, there are legal barriers related to bureaucracy in the UK and the European Toy Safety Directive (2009/48/EC) that could avert some companies to enter.

Bargaining power of customers: is high. First of all, toys are not a primary necessity good and the pressure from the end consumers is really high because they can demand higher quality, safety and better service which can pressure companies to increase the prices and spend in constant innovation. Secondly, they benefit from the low switching costs in the industry due to the wide

variety of products, including substitutes, and the large number of companies that compete among each other. Consumers are getting more demanding with the final product and the post-purchase service; and the substitute products such as video games and electronic gadgets are gaining importance among children. Also, customers like the big retailers have a strong power over S4Y because the company depends a lot on them in terms of source of revenues (**Exhibit 10**).

Bargaining power of suppliers: is low. S4Y needs many different types of materials to produce their toys and there are a huge number of very diversified suppliers in the market so the switching costs are low and the company doesn't need to order large quantities from just one or a few suppliers, which gives them no power to change prices.

Threat of substitute products or services: is really high. Substitutes of S4Y products are everything that is related with entertainment and children, including traditional toys, video games and electronic gadgets. The offer is endless in terms of quality and prices and there are not switching costs for substitutes. Moreover, children get bored easily, making them to search for something new and easily change to a substitute.

Rivalry: is high. Apart from the traditional toys, there are a huge number of players (9) fighting for their market share in the educational toy sector, especially in the UK, and some of them are already well established with strong brand awareness, longer history and represent an important reference among the consumers' choices, since they invest a lot more in marketing and have a stronger presence worldwide.

From the 9 direct competitors in the UK market, the ones S4Y should worry the most are **Wild!Science**, **EDU-Science** and **4M**. **Wild!Science** is one of the world's leading educational science toy maker, therefore it has a strong importance in this niche not only in the UK but globally. **EDU-Science** competes directly with one of the most important competitive advantage of S4Y, the instruction books with scientific information about the toys and the experiences provided. Lastly, **4M** also competes with S4Y's main competitive advantage, the logo of a Science University that guarantees the reliability and quality of the products. Still, the other 6 companies also actively participated in important toy fairs, exported worldwide, won several awards and had partnerships with important retailers, science museums and toy associations (**Exhibit TN 3**).

Given that scenario, I can conclude that it is not a market where S4Y could easily differentiate its products and its brand name. Especially with an offer of only 28 different toys similar to the

competitors' and with low prices. If S4Y is targeting the upper middle class consumers, it should have a positioning of high end products.

5. Identify the strengths and weaknesses of Science4you's strategy in the UK market. Identify the threats and opportunities in the UK market.

Similarly to Spain, the company replicated the strategy already established in Portugal. It opened its second subsidiary in the UK through a partnership with the University of Oxford. S4Y got the University's logo in its packaging to ensure the quality of the products and benefited from the Oxford scientists assistance in terms of new product development and improvement of the scientific information of the booklets. Furthermore, apart from the partnership with retailers like Toymaster, Staples, Toy Galaxy, and Chelsea Toys, the company signed a partnership with the big retailer Aldi which allowed the toys to be available in more than 600 shops in UK and Ireland. Also, the products could be found online in Amazon and in the company's UK website.

Through the **SWOT analysis (Exhibit TN 4)** I can identify the Strengths and Weaknesses of the company and the Threats and Opportunities of the UK toy industry.

Strengths:

(1) The partnership with Oxford University allowed for the utilization of its logo to work as a certification of quality and loyalty and it also provided assistance in terms of writing the booklets, space for the S4Y offices and help in new product development.

(2) S4Y had a very young and diversified team in terms of backgrounds where 80% were graduated.

(3) The booklets that came with the toys are a strong competitive advantage, since most of science kits in the toy stores teach little science or don't teach science at all. Usually they only include the instructions to construct the toy. They were carefully designed to be very simple, appealing and fun. Therefore, children at an early age understand the scientific methods and parents are encouraged to be involved in the children's activities.

(4) The partnership with the big retailer Aldi allowed the toys to be available in more than 600 shops in the UK and Ireland. Moreover, they established partnerships with retailers like Staples, Toy Galaxy, Chelsea Toys and science centers where the toys could be purchased.

Weaknesses:

(5) e (6) Only 28 toys available.

(7) The promotion was made only through bloggers, reviews and contests.

(8) All the production is made in Portugal and the management decisions are concentrated in the CEO Miguel who lives in Portugal. The other vice presidents in the subsidiaries should have more autonomy. After all, they are the ones who fight in the field daily and have more knowledge about the market.

(9) The most expensive toy cost only 14, 99 pounds. The prices are considered too low for the UK market because consumers value more quality over price. It is a mistake to use in a market with different characteristics the same pricing as in Portugal. This way the products are perceived as low quality toys.

Threats:

(10) Strong direct competition in the niche of scientific educational toys and indirect competition of traditional toys.

(11) 9 national and international players in the niche of the scientific educational toys already well established.

(12) Substitute products such as the traditional toys, video games and electronic gadgets.

(13) Industry with low switching costs for the consumers.

(14) e (18) The evolution of new technologies, video games and gadgets market work both as a threat and an opportunity, depending on how the company decides to deal with it.

Opportunities:

(15) The UK market represented 25% of the total toy market in Europe.

(16) British consumers' characteristics such as quality-sensitiveness and open mindedness about new ideas and experiences can give S4Y the opportunity to be more creative and increase the prices without the risk of decreasing sales.

(17) The English language can open doors in terms of further internationalization.

6. How do you evaluate the decision of entering the UK market?

When entering the UK market, Miguel had to face important trade-offs. In one hand, he had **pros** like the English language, the size and importance of the market in the European toy industry (representing 25%), the opportunity of going into further English speaking countries such as Australia, USA and Canada more easily and the opportunities related with the society's characteristics (significant and well established upper middle class). On the other hand, Miguel faced **cons** like massive competition in the toy industry, huge number of players in the niche of scientific

educational toys, huge differences between the two countries socially and culturally and the tough bureaucracy.

The UK market is not similar to the Portuguese market in terms of competitive environment, consumers' characteristics, the importance of the country in the worldwide toy industry and toy consumption weight on the country's GDP. Hence, entering this market with the same strategy as in Portugal was a mistake. The company cannot expect the same results it had on the Portuguese market or even in the Spanish market that was a market similar to the Portuguese. The Blue Ocean strategy adopted in Portugal was a success for many reasons. S4Y didn't have to worry about competition because it had barely any, only two more players (4M and Clementoni) that didn't have any importance in the educational toys sector. Still, Portuguese consumers were very price sensitive and there was a lack of a big upper middle class. In the UK market S4Y didn't have the right conditions to adopt a Blue Ocean strategy. Instead, it was a **Red Ocean (Exhibit TN 5)** because it is the most developed toy market in Europe, with a lot of players well established and a strong competition among them, where all the toy companies are attracted to. It was a rough environment where S4Y needed to fight in an existing market, beat the competition where the competitive advantages were not hard to copy and exploit the existing demand where there wasn't much space to differentiate its products from the competitors. Concluding, the company should either choose a low cost strategy or a differentiation strategy.

Giving the British consumer's characteristics – early adopters[17] and quality-sensitive –, a low cost strategy wouldn't catch their attention because they don't look for cheap toys. It should go for a **differentiation strategy** offering innovative products of high quality and high prices because these are the two features they value the most: superior quality and innovation.

7. What are the alternatives for the future development of S4Y?

Alternative 1:

In **Exhibit 15** can be seen that the top selling toy in UK is an expensive toy – LeapPad Explorer tablet (67,65 pounds) – compared with the top selling toys in the other countries. This data fits the major British consumers' characteristics such as quality-sensitiveness instead of price-sensitiveness, consumerists, open minded towards new technologies, early adopters and low saving rate. Therefore, and taking into account the competition scenario, S4Y should enter the UK market with a

[17] **Early adopter** is a consumer who adopts a company, product or technology and removes all the uncertainty about it before the late majority feel that is safe to adopt (Rogers, Everett M. Diffusion of innovations. Simon and Schuster, 2010)

differentiation strategy where they would invest a lot on Research and Development to come up with new toys with more frequency and be a step ahead of the competitors, always with a major concern with the quality of the products and packaging. The prices should be only medium/high because the product must be perceived as a premium by the consumers. If the toys are presented as low cost toys, the British consumers are not going to pay much attention to the brand and they are not going to perform repeated purchases in the future nor share word of mouth with their social circle. In this case, S4Y must have a strong Marketing Department, it should invest a lot on promotion and publicity (online and TV) and develop the complementary activities where the company goes to birthday parties and schools to create brand awareness in the children, parents and teachers.

Alternative 2:

It should enter the market with different product lines such as **video games** and **electronic gadgets** in order to follow the market trends. These product lines should follow the evolution of new technologies and combine it with the education and scientific content. Therefore, the company would sell scientific/educational video games and electronic gadgets with applications that would allow children to have fun and learn at the same time. In the UK market there was a high penetration rate of smartphones. Video games are the big trend and fill the must-have list of parents. And children's purchasing power and the power to influence parents are growing. British consumers are also early adopters and heavy consumerists when it comes to new and innovative products, technologies and experiences. Moreover, S4Y should invest more on the website and **online purchase**, namely in the ***click and collect*** practice that is widespread in the UK. Because, there was a greater trend for online purchases, also a greater trust from the consumer on the payment methods. The LeaPad Explorer tablet was the top selling toy in UK, in 2012 (**Exhibit 15**), which demonstrates the trend of consuming electronic gadgets and adopting new technologies.

The other product line to take into consideration is **dolls**. Dolls were the second most popular category on the European market, offering an interesting opportunity to explore. S4Y could design a product line exclusively for girls where it would combine dolls with a learning experience, for example, different scientist dolls where each one would offer a different scientific experience.

Alternative 3:

S4Y could have explored other markets more similar to Portugal and Spain before entering the UK market. It would have better conditions to face a rough market if previously the company was used to competitive environments and different challenges. Geographically speaking, the two countries

near Portugal that are more similar to the Portuguese and Spanish markets, socially and culturally, are France (**Exhibit TN 6**) and Italy (**Exhibit TN 7**). According to Hofstede, S4Y should go to France first because when compared with Italy it is the one with more similarities. In the French market the biggest challenge would be on the dimension of Individualism where both countries differ more. It means that S4Y would have to invest more in consumer retention strategies, since the consumers are less likely to become loyal to a brand or company. Then, it should go to Italy where it faces two major challenges on the dimensions of Individualism and Masculinity. Thus, it needs to apply the same retention strategies but also to focus more in product lines designed by the male consumers or unisex toys and focus their publicity in the male audience.

If S4Y wants to adopt the same strategy used in Portugal and Spain, it should choose the alternative **3** and seek countries with similar characteristics.

On the other hand, if S4Y is available to adapt, at an early stage, it should adopt a mixture of alternative **1** and **2** together. And after the company gain market share and a good position in the market, it could try to adopt a strategy more similar to the one used in Portugal and Spain.

8. What are your recommendations for the CEO of S4Y?

S4Y should adapt its strategy according to the characteristics of the country and its consumers where they intend to be established, instead of simply replicating the strategy followed in Portugal. Although, there is one measure that the company should always adopt independently of the target country: a partnership with an important local university to get its logo on the products.

If the main objective of S4Y is to enter the UK market, the better option is to go directly for the UK instead of gaining experience in France or Italy, as described in *Alternative 3*. Otherwise it would be delaying its main objective and the process of further internationalization. Furthermore, there were no guarantees it would be successful in those countries. However, the strategy must be totally different.

Besides being present in every social network, it should use aggressive marketing, for example, guerrilla marketing campaigns in order to create brand awareness and recognition among parents and children. Also, the promotion of the products should enhance its competitive advantages: the certification of the University, the educational content and the interactive booklets.

Concerning the progress of the online market in the UK, it also must invest a lot on a development of an attractive and user friendly website where consumers would be able to buy all the products and choose between the direct delivering to the consumer and the *click and collect* methods of purchase. Plus, the online website should be the main source of revenue in this country, for the purpose of reducing costs, increasing the margins and reaching a large number of consumers all over the country. Besides that, it should have some partnerships with the most important large retailers and key small and medium sized shops spread throughout the cities and small towns to be able to promote the products and use the *click and collect* method.

In terms of pricing, it should position the products as premium with medium/high prices in order to be perceived as quality products and attract the British consumers. Furthermore, it needs to invest a lot in research and innovation to keep up with the consumers' needs and to be able to launch better and more innovative products and differentiate from its competitors.

Also, given the higher penetration rate of smartphones in the market, it should develop an **App** for smartphones and tablets with educational games and first hand news about the company and its products, where the client could also register and have his own client section with combined information from the Scientist Card. This should allow the company to strengthen his CRM strategy and offer a more personalized service to the customer in order to differentiate itself and retain the clients: the client would receive notifications about special suggestions and exclusive promotions according to his client profile and history purchases.

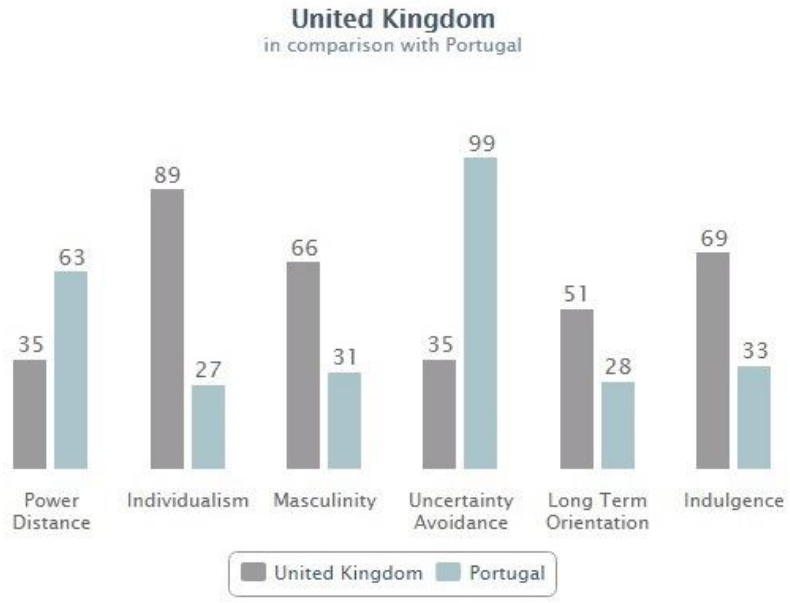
Contrary to Portugal and Spain, where the company adopted both product differentiation and cost leadership approaches, the strategy that S4Y needs to adopt in the UK market is a **product differentiation strategy**. So, this recommendation corresponds to alternative 1. I also think that the company should run a test market to see if a new product line dedicated to video games and electronic gadgets with higher prices would be a good investment for the future. This second line of development is an enrichment of alternative 1 with parts of alternative 2, which I consider that can fit with the main line of alternative 1.

EXHIBITS – TEACHING NOTE

<u>Exhibit TN 1</u> – Spain in comparison with Portugal

Fig3. Source: geert-hofstede.com

<u>Exhibit TN 2</u> – United Kingdom in comparison with Portugal



Source: geert-hofstede.com

<u>Exhibit TN 3</u> – Comparison of the different strategies among the players in the niche of educational toys in UK market

	Business	Awards	Fairs	Partnerships	Exports Worldwide	Product Lines	Online Shop	R & D	Science guides/ instructions books	Prices
S4Y	Scientific educational toys	X	X	Science University (Logo) Science Musems Key Companies	X	28 toys	x	X	X	
Wild!Science	Scientific educational toys	X	X		X	8 product lines (**boys and girls**)				Medium/high prices
Kosmos		X		Retail stores Museums Online Retailers Toy Associations		13 product lines				
John Adams Toys	Not specialized in educational scientific toys, only in 4 product lines			Big Retailers Online Retailers		4 product lines		X		
Ravensburger	Puzzles and games with a strong educational component				X	Huge variety				
EDU-Science	Scientific educational toys				X	19 product lines (**unisex** toys)		X	X	
Grafix		X		Big Retailers		10 product lines (**boys and girls**)	X			Wide range from really cheap toys to really expensive (more than 130€)
Trends UK					X					
4M	Creative and Scientific educational toys	X	X	Science University (Logo) Online Retailers Big Retailers	X					
Clementoni	Scientific and educational toys		X	Online Retailers Big Retailers	X			X		

Exhibit TN 4 – SWOT analysis

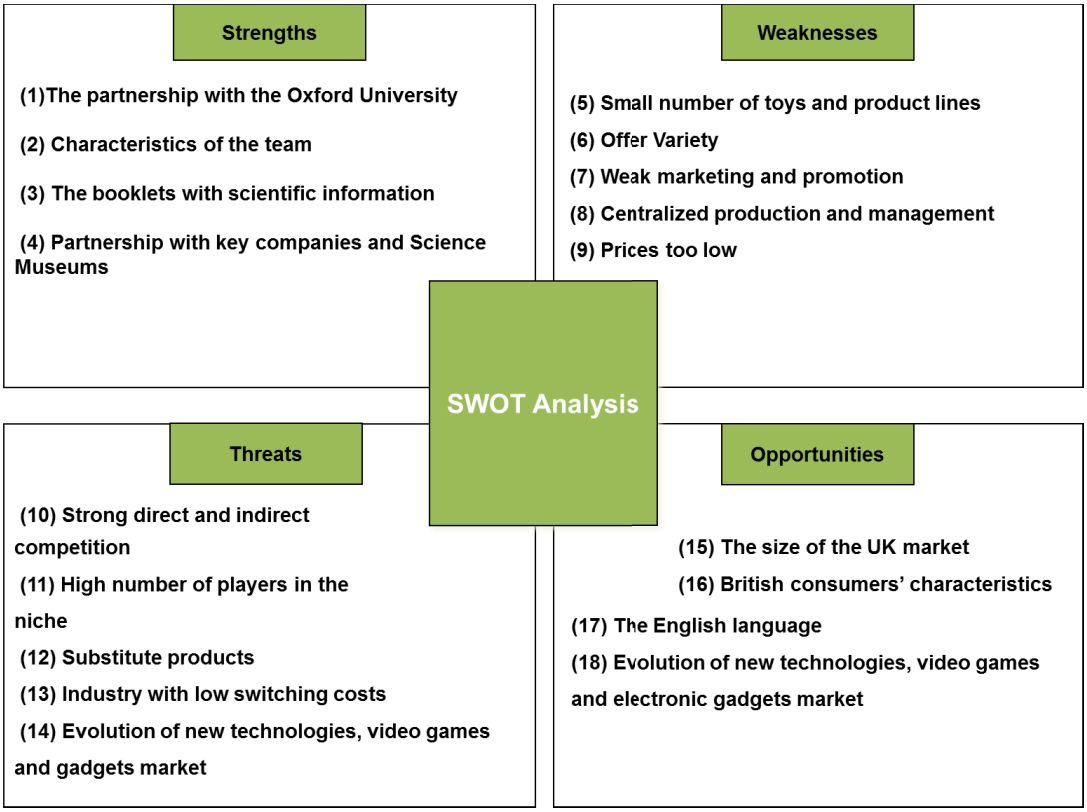
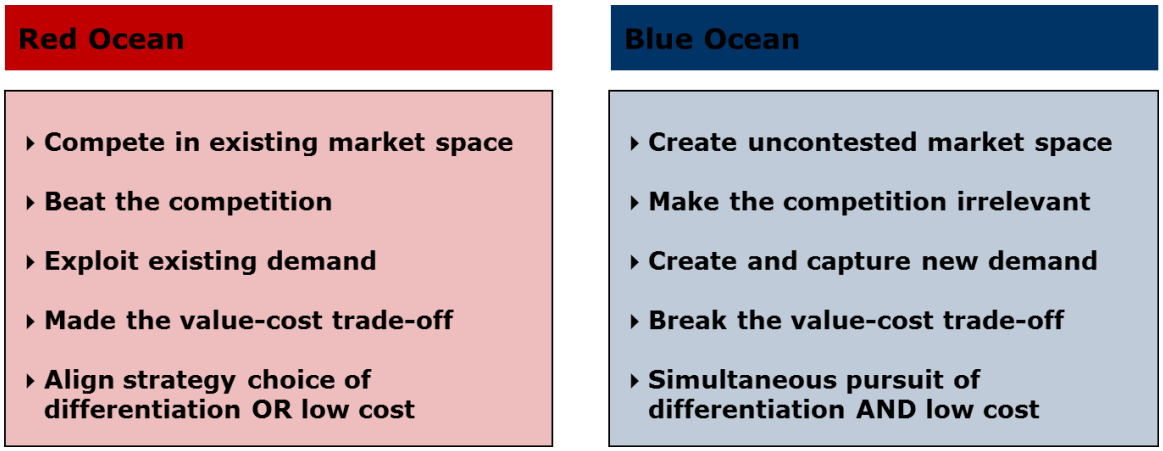
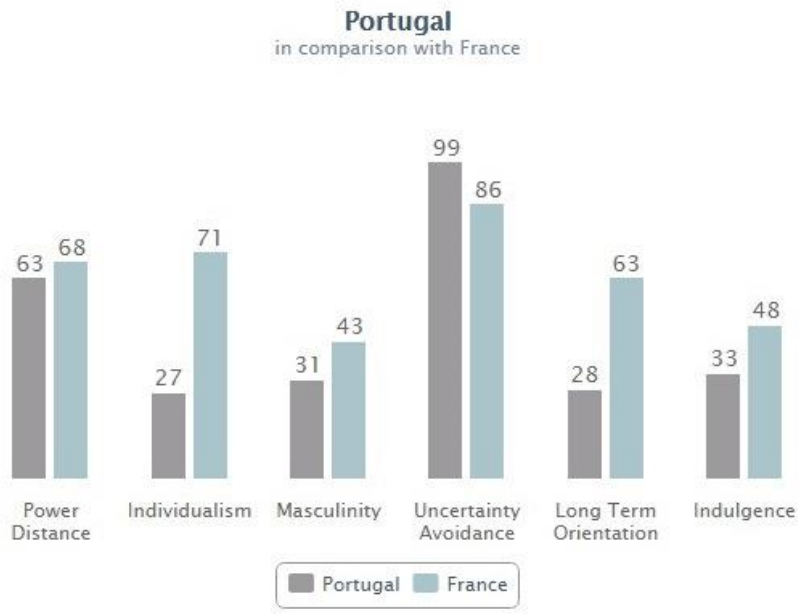


Exhibit TN 5 – Blue Ocean vs Red Ocean Strategies



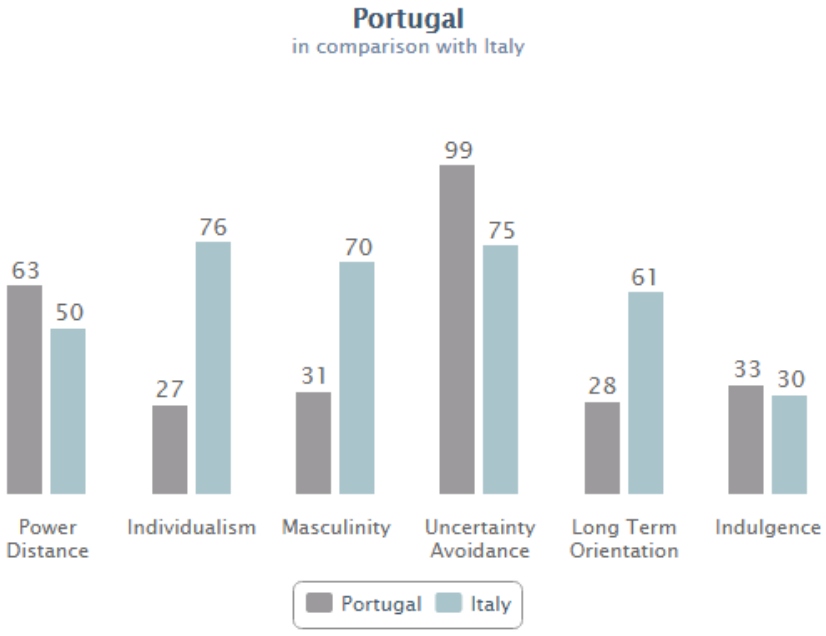
Source: Chan, K.W. & Renee, M., 2011

<u>Exhibit TN 6</u> – United Kingdom in comparison with Portugal



Source: geert-hofstede.com

<u>Exhibit TN 7</u> – United Kingdom in comparison with Portugal



Source: geert-hofstede.com

4. CONCLUSION

This study allowed me to conclude that S4Y adopted an efficient strategy for the Portuguese and Spanish markets, mixing both product differentiation and cost leadership. The company was successful since it achieved great outcomes and a fast growth over the first years, taking into account that there was a serious financial crisis in both countries during that time. However, and despite the good results, the company built favorable conditions to continue expanding its business.

In the process of entering the UK market, it was essential to maintain two important competitive advantages such as the logo of the local University and important partnerships with key entities. But, it was a mistake to replicate the same business model used in Portugal. In the UK we are not in the presence of a Blue Ocean anymore. It is a Red Ocean with massive competition, high number of players with different consumers' and market characteristics.

In my analysis, I concluded that going to the UK was a good decision for its internationalization plan giving all the existing opportunities. Nevertheless, the company should change its strategy to a differentiation strategy offering innovative products of high quality at higher prices, to be perceived as premium.

The main conclusion of this study is that S4Y should adapt its strategy according to the characteristics of the country where it intends to be established and its consumers, instead of simply replicating the strategy that has proven to be successful in Portugal.

For future research, the possibility of entering different markets more similar to Portugal such as France or Italy could be analyzed. Moreover, the analysis of the feasibility of the development of a new product line dedicated to video games and electronic gadgets could be deepened.

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