



November 2020 & February 2021 Management Case Study Examination

Pre-seen material



Contents	Page
The History of plastic construction toys	3
Prybloxx	4
Prybloxx product ranges	6
Pricing issues	7
The manufacturing process	8
Sales	9
Consumers	10
Management structure	11
Business Model	13
Costing information	14
Extracts from Prybloxx's annual report	15
Extract from Ckonstro's annual report	18
News reports	21

Prybloxx is a quoted company that manufactures a range of plastic bricks that are sold globally as toys and educational products. Prybloxx is based in Central City in Varanda.

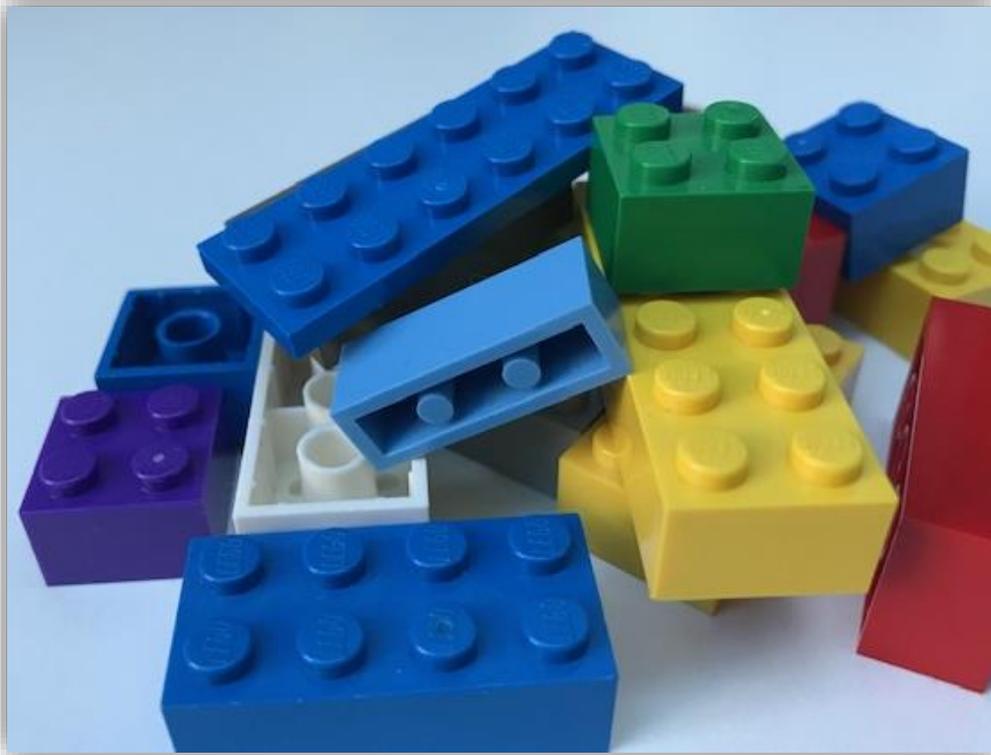
Varanda has a developed economy with relatively high wage rates, which means that citizens can afford a good standard of living.

Varanda's currency is the V\$. Varandan company law requires companies to prepare their financial statements in accordance with International Financial Reporting Standards (IFRS).

You are a financial manager at Prybloxx's Head Office. Your primary responsibilities are associated with management accounting and you report to Alex McDonald, the Senior Financial Manager, who reports directly to the Finance Director.

The history of plastic construction toys

Prybloxx manufactures construction toy sets that are based primarily on plastic bricks. These bricks come in different shapes, designs and colours, but the majority have studs on top and tubes on the inside. This arrangement makes it possible to clip the bricks together to create toys and models that are strong enough to be played with. Afterwards, the bricks can be easily unclipped and used to make something else or be stored in a box or a bag.

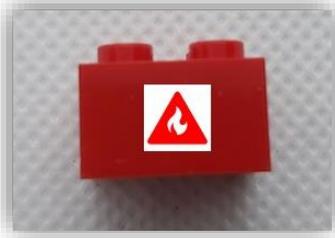


This style of construction toy was launched in the 1930s by a competing brand. This brand remains the market leader for this type of toy. The design proved popular with children because it permitted them to use their imagination in play. Parents were attracted by the educational value associated with the design and construction process. The company grew steadily until it became one of the world's largest toy makers.

Competing brands of bricks started to be marketed during the 1960s. These were deliberately designed so that they were compatible with the industry leader and so could be used interchangeably with its bricks. The design of the bricks could not be patented, so there was nothing to prevent competitors from entering the market, provided they did not abuse registered trademarks such as the company name or the names of products and product ranges.

The initial aim of the competitors was to compete on the basis of retail price. Making their bricks compatible with those of the leading brand enabled them to compete directly on price. Some manufacturers actively promoted them as a means of adding to a child's collection of the leading brand of bricks.

Until the 1970s, all manufacturers sold generic sets of building blocks, with the bricks being supplied in a small range of different colours. Over time, the range of parts had expanded slightly to include items, such as wheels that could be clipped into special bricks that had internal tubes, that allowed axles to rotate. A child might build a toy house one day and a toy car the next.



By the late 1980s, the leading brand's manufacturer decided to change its direction by adding "model kits" for sale alongside the sets of generic building blocks. These model kits included a printed sheet of instructions and specific bricks that enabled the child to build a specific item or items. For example, a kit might be intended to build a toy fire engine. The distinguishing characteristic of those kits was that they included custom parts that were not otherwise available in the generic sets. For example, the fire engine kit included a

turntable ladder that came only with this kit, along with bricks that had been screen-printed with signs and logos that signified "Fire Department".



Over time, the sophistication of model kits has grown, with greater emphasis on custom parts and printing to make the models more realistic. The custom parts include small figures that have moveable arms and legs that are designed to complement the models and enhance play value.

There has also been a move towards technology. It is now possible to purchase various electronic components that add functions ranging from flashing lights through to remote-controlled motors that can be operated with a smartphone.

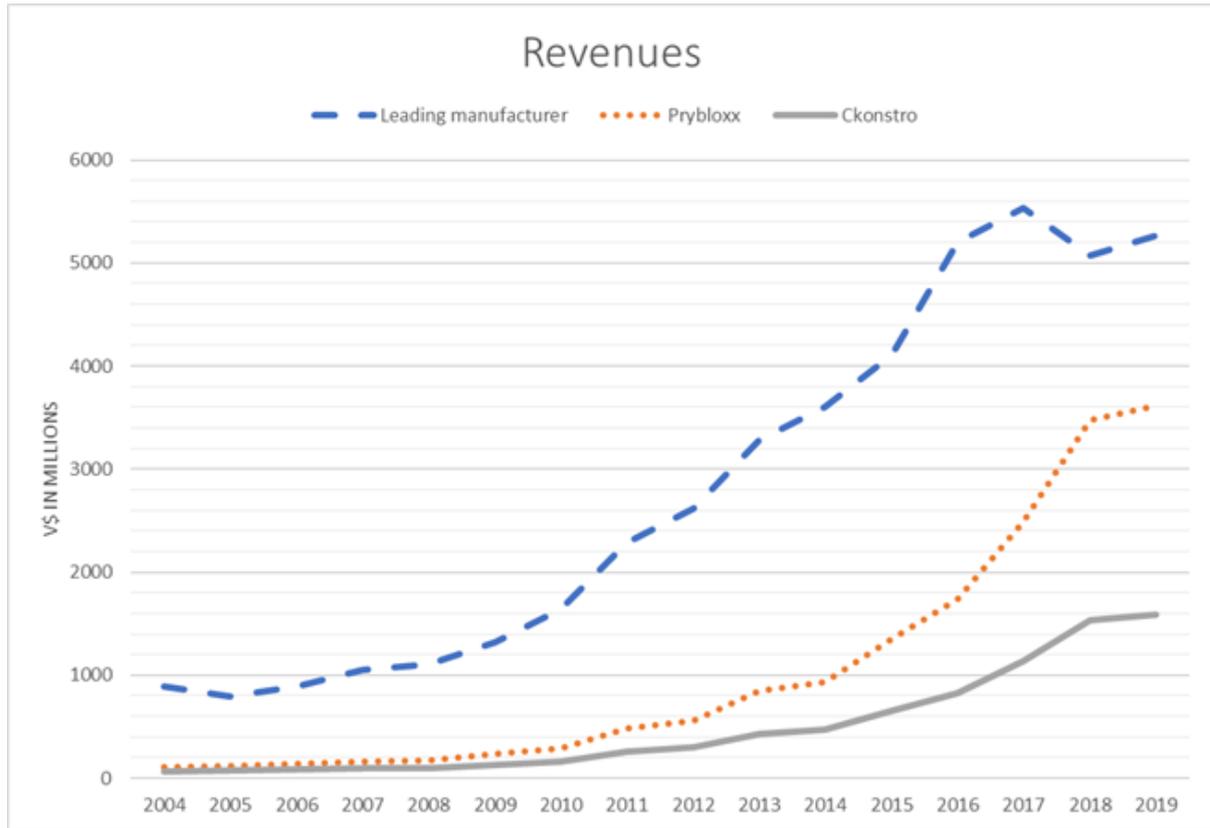
Prybloxx

Prybloxx was founded in 2004 by Brendan Lee, an entrepreneur who wished to imitate the continuing success of the leading brand's sales of sets and model kits. Mr Lee developed a range of generic bricks that were compatible with those of the leading brand. These were sold by weight in order to stress the value for money that Prybloxx was offering. Selling bricks in one and two kilogramme boxes also made packaging and distribution cheaper and easier. Prybloxx bricks were also manufactured to very fine tolerances so that they fitted together well. Many cheaper brands had a reputation for being difficult to attach to one another and the resulting models could also be fragile. Prybloxx has always aimed to match the leading brand in terms of product quality.

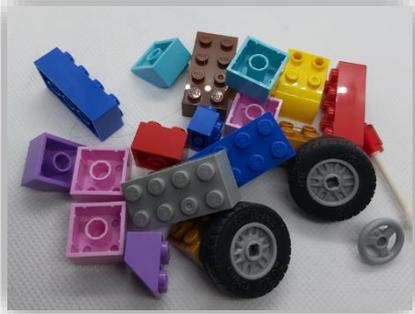
Once Prybloxx was established as a brand that was synonymous with value for money and good quality, it started to develop its own ranges of model kits. These proved highly successful and, as a result, Prybloxx grew rapidly.

Prybloxx was quoted on the Varandan Stock Exchange in 2010. At that time, Brendan Lee retired from the company and sold all of his equity.

Prybloxx is now the world's second largest manufacturer of construction toys, ranking behind the leading brand. The third largest company is Ckonstro, which has a very similar business model to that of Prybloxx. It offers a very similar model range based on building blocks that are compatible with those of the leading brand.



Prybloxx offers the following product ranges:

<p>Basic Prybloxx</p>		<p>Basic Prybloxx sets comprise generic bricks and associated items, such as wheels, doors and windows, that are sold as boxes of mixed sizes and colours. They are used to encourage children to express their creativity by building items from the bricks and other components that are available to them.</p> <p>Schools often use Basic Prybloxx in the classroom because they are ideal for helping young children to understand basic mathematical concepts, such as shapes and arithmetic.</p>
<p>Prybloxx Kits</p>		<p>The Prybloxx Kits range comprises sets of bricks that are designed to build a specific model. They are supplied with building instructions, which enable children to build the item pictured on the box lid.</p> <p>The bricks contained in one of these sets could be used in conjunction with other bricks to make a larger model, but children generally keep the model as a toy or as part of a collection and do not dismantle them once built.</p> <p>Prybloxx Kits usually contain some custom parts that are not generally available in Basic Prybloxx sets.</p> <p>Kits are often linked to themes. For example, Prybloxx City Kits include buildings and vehicles and Prybloxx Rail Kits include locomotives, wagons and carriages.</p>
<p>Prybloxx Character Kits</p>		<p>The Prybloxx Character Kits build into models that are based on a character, a vehicle or a building from a film or television programme. Prybloxx pays a royalty which grants a licence to use copyrighted images and trademarked names.</p> <p>The design and manufacture of Prybloxx Character Kits is virtually the same as for Prybloxx Kits, except that the owners of the intellectual property that is being licensed insist on seeing and approving the designs before the products are launched.</p>

Prybloxx sets its recommended retail prices at a slightly lower level than the leading brand's to allow for superior brand recognition, but the difference is rarely more than 5-10%.

Prybloxx's bricks are of good quality and moulded to the same fine tolerances as the leading brand's. Its Kits and Character sets are of similar quality and are designed to a high standard. Prybloxx has a large Design Department comprising 150 staff, who are responsible for designing new products and updating existing parts. The design process is complicated by the need to minimise manufacturing costs while creating something that is new and exciting. That can require compromise, such as using an existing blue brick to create a police car kit rather than using a slightly more accurate colour that would require a separate production run to create blue bricks in a slightly different shade that better matches the colour of a real police car.

Prybloxx constantly refreshes its product ranges, particularly with regard to Kits and Character Kit ranges. Products that are declining in popularity are quietly withdrawn from sale. Likewise, new products are generally introduced with relatively little publicity, because customers are generally willing to browse the company's website and the displays provided by both online and traditional retailers.

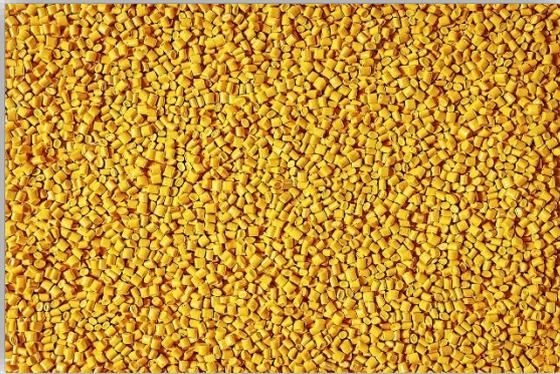
The Design Department has to work closely with the Production Department over design issues that overlap with production constraints. The injection moulding process requires designs to take account of the need to shape parts so that the mould fills quickly and evenly, with minimal distortion when separating the moulded parts from the mould itself. Designs often require compromise to allow for the constraints associated with the manufacturing process.

Pricing issues

Basic Prybloxx	Trade selling prices allow Prybloxx to recover manufacturing costs and make a realistic contribution, with scope for the retailer to earn a further contribution from the final sale. The relationship between manufacturing cost and recommended retail price is not linear. For example, the Basic Builder Kit contains 153 parts and retails for V\$44.99. The Master Builder Kit has twice as many parts, but it retails for V\$71.00, which is only 60% more. Prybloxx wishes to demonstrate that larger kits offer customers better value for money. Some prices are based on perceived added value rather than cost to Prybloxx. For example, the Motor Builder Kit contains the same number of moulded parts as Basic Builder, but it also includes an electric motor. The Motor Builder Kit costs an additional V\$2.74 to manufacture, but it retails for an additional V\$15.00 because the motor offers much greater play value. Prybloxx also has limited capacity to produce those "added value" parts, especially motors and lights.
Prybloxx Kits	The Prybloxx Kits generally retail for roughly 90% more than a Basic Prybloxx Kit containing the same number of parts and features. That is mainly due to the greater perceived play value of the Kits. Kits generally include a few special parts, which cost a little more than generic parts to make because of low production volumes, but those parts rarely add more than V\$1.50 to the total cost.
Prybloxx Character Kits	Prybloxx Character Kits generally retail for 15% more than a Prybloxx Kit with the same number of parts. Again, that reflects the additional perceived play value arising from the link to popular characters. The royalties add V\$0.15 to V\$0.35 per unit.

The manufacturing process

The basic building blocks are manufactured in a highly automated process called injection moulding. Pellets of a very hard plastic called ABS are melted and forced into a large metal mould using an injection-moulding machine.



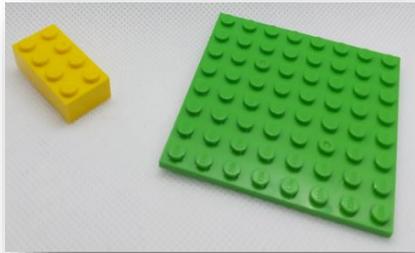
The moulds used in these machines are made out of metal and cost roughly V\$50,000 to produce. The moulds have finite lives, eventually losing their precise shape. The bricks have to be manufactured to a very precise tolerance, otherwise they will not fit together properly. Prybloxx minimises the numbers of moulds required by aiming for long production runs of each given part.

The colour of the brick is determined by the colour of the plastic pellets being fed into the machine. The cheapest and easiest way to change colours is simply to start feeding a new colour of pellets into the machine, discarding the initial outflow while the remainder of the previous colour of plastic is forced through the machine.

Some components are made out of materials other than ABS. For example, clear and translucent components are moulded from polycarbonate plastic. Other plastics are used for parts that require greater flexibility than ABS and polycarbonate can provide.

The cost savings associated with long production runs for each part mean that Prybloxx often makes specialised parts in a single batch, with a view to discontinuing the associated kit once that part runs out. For example, the Namer Ford figure, which is included as part of a Prybloxx Character Kit wears a hat that is unique to that kit. Prybloxx moulded 500,000 hats in a single production run when the kit was launched. That particular kit may be discontinued when the inventory of hats, and any other items that are unique to it, run low. That decision will depend on the continuing popularity of the kit at the time.

Large inventories of parts that are no longer required, because they were intended for kits that are no longer popular, are sometimes repurposed. For example, the wheels that were designed for the Wanda's Carriage Character Kit were subsequently incorporated into the design of the Rider McColl Chuck Wagon Kit. Parts that cannot be repurposed can usually be melted down and brought back into the production process, provided there is no need to dismantle them first in order to separate different colours and materials.



The vast majority of the parts manufactured by Prybloxx are generic bricks and base plates that are unlikely ever to become obsolete. Those parts are manufactured in large quantities and inventories are replenished in economical production runs whenever necessary. These items are generally described in terms of their colour and the number of studs on their upper surfaces. For example, a yellow 4x2 brick or a green 8x8 base plate.



Basic components are ready for packaging once they leave the mould, but others require further assembly before they are sent for packing. For example, some parts are stamped or screen printed to create a texture, a logo or some other form of design feature. Other parts must be assembled from individual components. For example, windows and windscreens usually comprise a frame made from ABS and a clear pane of plastic that is clipped into place. There is also a range of Prybloxx Figures, each of which comprises several small components that are assembled in the factory. All of these processes are automated.

The packaging process is also largely automated. Plastic bags are carried along a filling line, which has been programmed to insert the required number of bricks of each type for the kit that is being manufactured. The bags are then placed in boxes, which are closed and stacked by shipping staff.

Prybloxx has a single large factory that is located on the outskirts of Central City in Varanda. All manufacturing operations are located there. There is a large distribution centre at the factory, but Prybloxx also has a further seven distribution centres located in different countries to facilitate export sales.

Sales

Most of Prybloxx's sales are made through third parties. Products are sold in 110 different countries, most of which offer the following types of retail environment for toys:

Online	<p>A significant proportion of toy sales are made through online retailers, some of which operate internationally.</p> <p>Prybloxx has a strong relationship with the leading online retailer that serves Varanda and several other developed countries.</p>
Catalogue retailers	<p>Catalogue retailers offer a mix of physical and online sales.</p> <p>Physical sales require customers to go to a store and select and pay for an item. The store staff then obtain the item from a stock room for immediate collection by the customer.</p> <p>In Varanda and many other countries, catalogue retailers dominate the physical retail market for toys.</p>

	Catalogue retailers also make their catalogues available through their websites. Customers can select items for collection from their local store or they can order online for delivery.
Major toy chains	Traditional toyshops struggle to compete with online and catalogue retailers, but many countries have at least one major chain of toy retailers.
Wholesalers	Prybloxx requires minimum orders before it will sell directly to any particular customer. Wholesalers generally buy in bulk from Prybloxx in order to resell products to small, independent retailers who could not meet the minimum order requirement.

Prybloxx sets trade prices for sales to retailers. Quantity discounts are offered to customers who buy in greater quantity. Trade prices are sufficient to ensure that Prybloxx makes a satisfactory profit on every sale, even after allowing for quantity discounts.

Prybloxx sets a recommended retail price for every product, which it communicates to its commercial customers. Competition law prevents manufacturers from forcing retailers to sell at the recommended retail price. Some retailers choose to sell at that price, while others sell at a discount and some sell at a higher price.

Consumers

The vast majority of kits are purchased as children's toys. Prybloxx claims that its bricks are suitable for children from the age of three years onwards. There are ranges of kits that are aimed at children in different age groups, up to young teenager. The intended age for each kit is printed on its box. Kits aimed at older children are generally more challenging to build, with larger numbers of small parts. Character Kits are themed to allow for the popularity of film and television characters to different age groups.

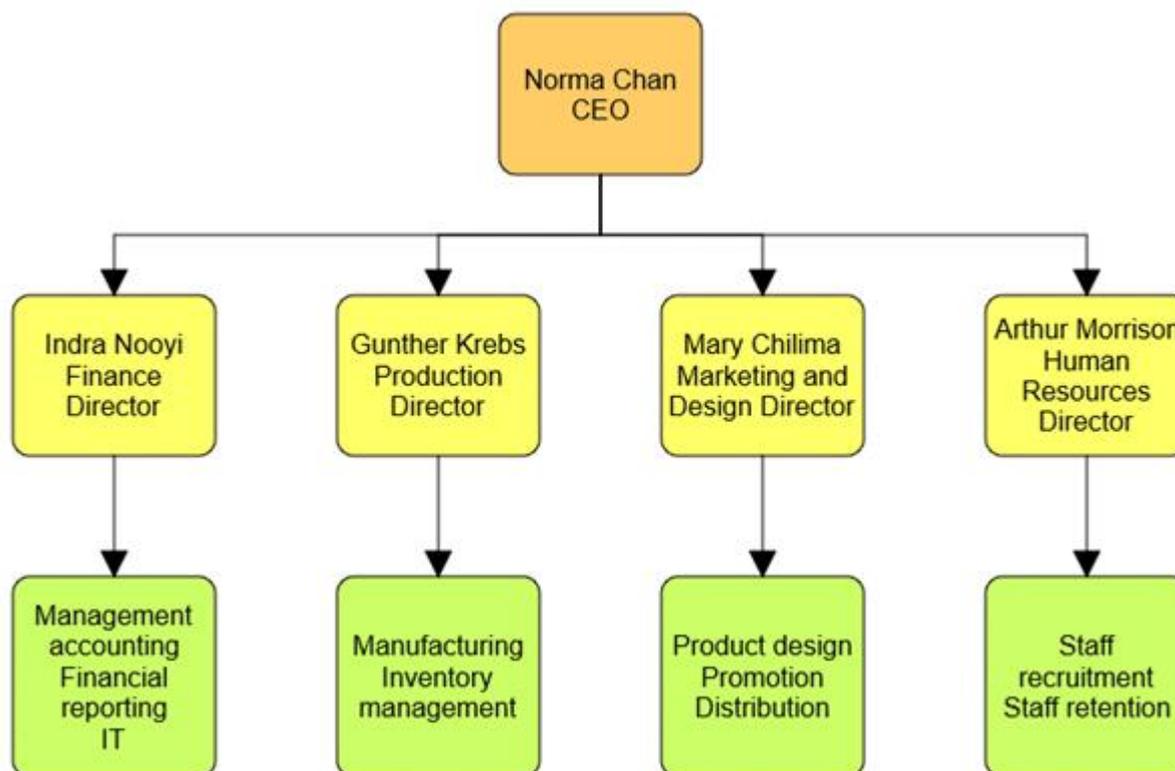
A significant proportion of sales are made to schools. Encouraging younger children to play with building blocks teaches them to understand the relationships between shapes and numbers. Some schools have specifically incorporated building blocks into the curriculum for that purpose. Plastic bricks are also used with older children to build basic apparatus for science experiments. The bricks allow for educational flexibility and can be quickly repurposed, which makes them cost-effective and easier to store than more rigid dedicated equipment.

There is a small but significant market for adult hobbyists. Some enjoy collecting kits and participating in online blogs where the latest models are discussed. Others have practical needs and use bricks for hobby or other practical purposes, possibly in conjunction with parts made from conventional building materials. For example, it is possible to download plans to construct a 3D printer chassis out of Prybloxx bricks. A hobbyist can then build the functional parts of the printer into that chassis and create a working device more cheaply than buying a readymade printer.

Engineers sometimes use plastic bricks to build initial prototypes. The bricks might be used to fabricate, say, an arm for an industrial robot in order to test the effectiveness of a control unit and its associated software. That could be preferable to building an expensive working model before the concept has been proven.

Management structure

Executive directors



Each of the executive directors, other than the CEO, oversees a number of functional areas. Each functional area has its own management team that reports directly to its respective director. The functions are all broken down into responsibility centres, most of which are cost centres. Some of the promotional activities overseen by Mary Chilima are also managed as revenue centres.

The key responsibility centres are as follows:

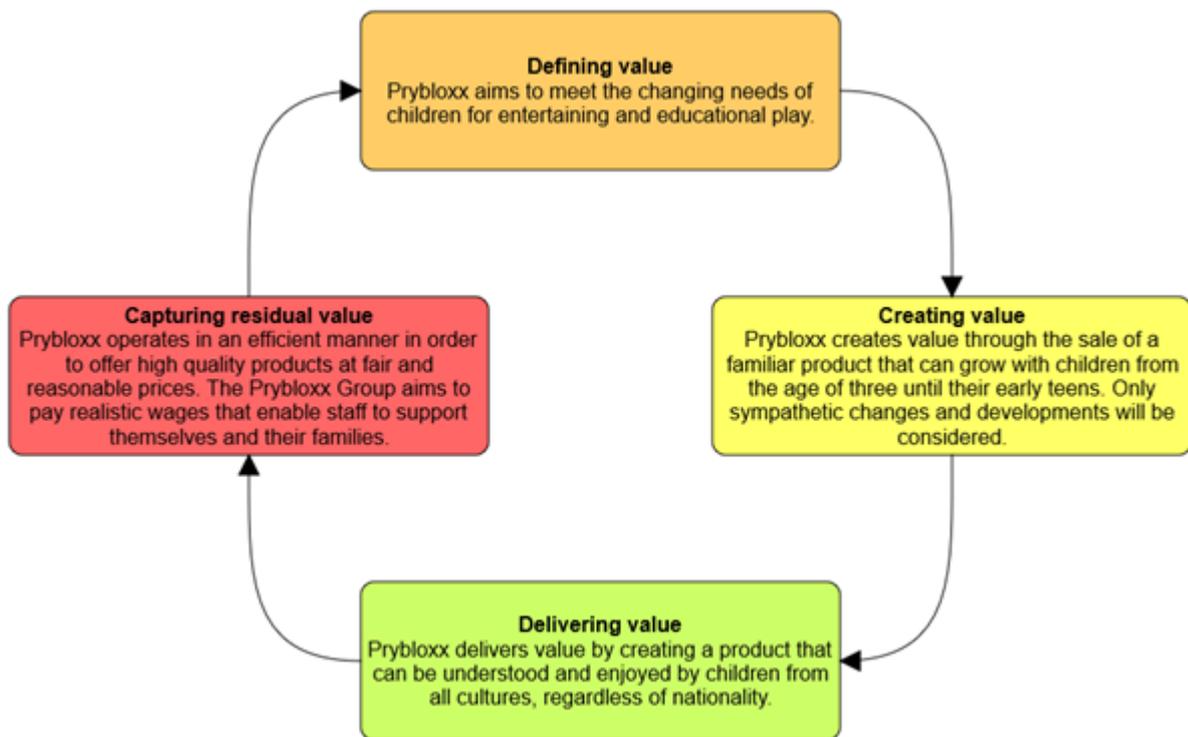
Report to	
Finance Director	<ul style="list-style-type: none"> Accounting and Finance Department – which includes Payroll Information Technology Department
Production Director	<ul style="list-style-type: none"> Production Department – which comprises manufacturing and inventory management
Marketing and Design Director	<ul style="list-style-type: none"> Design Department – which is responsible for the design of new bricks, the development of kits and liaison with the Production Department Sales, Advertising and Promotion Department Fulfilment Department – which is responsible for distribution Product Managers – each product range has a team of Product Managers, each having responsibility for particular product lines. The managers monitor the need for product development, feeding back to the Design Department and to the Advertising and Promotion Department. <p>Product Managers are also held responsible for monitoring sales volumes for their lines. Product Managers are expected to liaise with</p>

	major retail customers and to conduct market research with consumers.
Human Resources Director	<ul style="list-style-type: none">• Human Resources Department

In addition, Prybloxx has a non-executive chairperson and four non-executive directors:

- Mohd Nasarudin Saian – Non-executive Chairperson
- Geraldine Wallace – Non-executive Director
- Johan De Tavernier – Non-executive Director
- Justus Nwaoga – Non-executive Director
- Martine Collins – Non-executive Director

Business model



Prybloxx itself has existed for a little more than a single generation of children aged from three years until early teens. The Prybloxx brand has established its own reputation during that period, while also benefitting from the much longer history of the products that are sold by the leading brand in plastic brick construction toys.

The product range has been designed so that children will learn to play with a basic kit of Prybloxx bricks, which will be supplemented by more advanced and model kits that will stimulate play throughout their childhoods.

Prybloxx avoids direct cultural references in its products. All instructions are in the form of pictograms, so there is no need to offer multiple translations and the company can easily expand into new markets. Model kits use logos in place of text for identification purposes. For example, Prybloxx fire engines use bricks that are screen-printed with a picture of a flame rather than the word “Fire”, or equivalent, in the local language.

The company aims to refresh and update its product range on a constant basis, but it aims to do so without departing from the fundamental brand image of wholesome and educational play.

Prybloxx operates around the world. Most of its staff are employed at its factory in Varanda, but the Group has distribution centres in several other countries. Varanda has a concept of a “living wage”, which is sufficient for an employee to achieve an acceptable standard of living and is higher than the statutory minimum wage. Prybloxx has committed itself to pay at least the living wage, even though it is not compulsory to do so. Overseas workers are also paid sufficient to live comfortably.

Costing information

Prybloxx has a relatively straightforward costing system.

The manufacturing cost for each size and style of brick depends partly on the brick's size and the number of units that are required. Each mould for the injection-moulding process costs approximately V\$50,000 to make and lasts for up to one million impressions before it starts to lose its precision. Moulds for smaller bricks can have multiple chambers that enable several identical bricks to be moulded in each cycle. Larger items, such as base plates, are moulded individually.

The overall cost of each kit includes costs other than the bricks:

- Packaging is expensive because kits are sold in good quality cardboard boxes that are printed in full colour.
- Distribution is expensive because the most cost-effective way to manufacture Prybloxx's large product range is to make each kit in bulk and then store it until it is sold. When the kits are finally shipped they are not particularly heavy, but they do occupy a great deal of volume.
- Character Kits require the payment of a royalty at the time of manufacture.

Extracts from Prybloxx’s annual report

Prybloxx Group		
Consolidated statement of profit or loss		
For the year ended 31 December		
	2019	2018
	V\$ million	V\$ million
Revenue	3,612	3,474
Cost of revenues	(1,011)	(997)
Gross profit	2,601	2,477
Administrative expenses	(433)	(425)
Selling and marketing expenses	(621)	(636)
Distribution expenses	(354)	(302)
Operating profit	1,193	1,114
Finance costs	(63)	(70)
Profit before tax	1,130	1,044
Tax	(260)	(252)
Profit for year	870	792

Prybloxx Group		
Consolidated statement of financial position		
As at 31 December		
	2019	2018
	V\$ million	V\$ million
Non-current assets		
Property, plant and equipment	1,163	1,126
Goodwill	897	897
Intangible assets	45	31
	2,105	2,054
Current assets		
Inventories	256	244
Trade receivables	672	658
Bank	109	97
	1,037	999
Total assets	3,142	3,053
Equity		
Share capital and share premium	1,000	1,000
Foreign currency reserve	(466)	(498)
Retained earnings	1,006	880
	1,540	1,382
Non-current liabilities		
Borrowings	900	1,000
Deferred tax	123	113
	1,023	1,113
Current liabilities		
Trade payables	318	307
Tax	261	251
	579	558
	3,142	3,053

Prybloxx Group				
Consolidated statement of changes in equity				
	Share capital and premium	Foreign currency reserve	Retained earnings	Total
	V\$ million	V\$ million	V\$ million	V\$ million
Balance at 31 December 2018	1,000	(498)	880	1,382
Exchange gains/(losses) for year		32		32
Profit for the year			870	870
Dividends			(744)	(744)
Balance at 31 December 2019	1,000	(466)	1,006	1,540

Extract from Ckonstro's annual report

Ckonstro is Prybloxx's closest rival. It manufactures plastic bricks that are compatible with the market leader's and with Prybloxx's. Ckonstro does not have quite as much brand appeal as Prybloxx and its products are often described as being of slightly inferior quality when they are reviewed.

Ckonstro competes directly with Prybloxx with its Ckonstruction Bricks and Ckonstruction Kits, but it also sells ranges that Prybloxx does not:

- Ckonstruction Baby bricks are much larger than traditional bricks, which means that they can be played with by young children under the age of three. The larger bricks are easier to handle for small hands and none of the bricks are small enough for a toddler to swallow.
- Ckonstruction Engineering sets include a range of parts that enable the construction of more complicated mechanical models. They include cogs, gears and drive belts that make it possible to drive moving parts with an electric motor.

Ckonstro Group		
Consolidated statement of profit or loss		
For the year ended 31 December		
	2019	2018
	V\$ million	V\$ million
Revenue	1,592	1,537
Cost of revenues	(459)	(470)
Gross profit	1,133	1,067
Administrative expenses	(207)	(208)
Selling and marketing expenses	(142)	(154)
Distribution expenses	(288)	(261)
Operating profit	496	444
Finance costs	(35)	(49)
Profit before tax	461	395
Tax	(106)	(103)
Profit for year	355	292

Ckonstro Group		
Consolidated statement of financial position		
As at 31 December		
	2019	2018
	V\$ million	V\$ million
Non-current assets		
Property, plant and equipment	554	593
Goodwill	427	427
Intangible assets	40	36
	1,021	1,056
Current assets		
Inventories	116	119
Trade receivables	286	346
Bank	52	40
	454	505
Total assets	1,475	1,561
Equity		
Share capital and share premium	400	400
Foreign currency reserve	(256)	(241)
Retained earnings	520	408
	664	567
Non-current liabilities		
Borrowings	500	700
Deferred tax	53	48
	553	748
Current liabilities		
Trade payables	156	140
Tax	102	106
	258	246
	1,475	1,561

Ckonstro Group				
Consolidated statement of changes in equity				
	Share capital and premium	Foreign currency reserve	Retained earnings	Total
	V\$ million	V\$ million	V\$ million	V\$ million
Balance at 31 December 2018	400	(241)	408	567
Exchange gains/(losses) for year		(15)		(15)
Profit for the year			355	355
Dividends			(243)	(243)
Balance at 31 December 2019	400	(256)	520	664

News reports

Happy Comic

Readers' questions

Question: I received several Prybloxx sets and kits for my birthday. Each one came in a cardboard box. Each box contained several plastic bags full of bricks. Why couldn't Prybloxx just put the bricks in the box itself? Also, isn't it bad for the environment to use lots of little bags instead of one big bag?

Josie, age 11



Answer: The Prybloxx factory makes millions of bricks every day. The bricks are stored in huge bins, with a different bin for each type of brick. Imagine a bin the size of a truck full of green 8x8 base plates. The factory has lots of tracks that carry plastic bags and follow different routes past different bins. Suppose the factory is making a batch of Cheery Tractor Kits today, the track that runs under the bin holding green 8x8 base plates will pause while the machinery counts the correct number of plates into each bag. Then the bag will be carried on, not stopping until it reaches a

different part needed for Cheery Tractor. Other tracks go under different bins and so the tractor's wheels and the parts for its grey canopy go into a different bag.

At the end of each track, the bags are sealed ready to be packed into their cardboard boxes, ready to go to the shops. It would be too complicated to put all of the parts for a kit in the same bag.

Prybloxx uses bags made out of corn starch that is friendly to the environment. It is biodegradable and does no harm when it decomposes.

Varanda Business Daily

Traditional toyshops struggle

Figures released by the Varandan Toy Retail Association (VTRA) show that only one of the country's ten largest toy retailers has a traditional chain of toyshops. Unsurprisingly, the top spot is occupied by Vretail, the major internet retailer that sells everything from pet food to household appliances.



A spokesperson for the VTRA commented that it was hardly surprising that toys sell well online. Children are generally influenced by advertising and by word of mouth endorsements by their friends. Parents find it easier and cheaper to place their orders online than to visit a shop.

The VTRA's figures also revealed that plastic brick construction kits remain the largest category of toys, measured by revenue.

Varanda Daily News

Check your toybox for valuables



Garden Town couple Roy and Betty Lee were celebrating a large windfall last night after they had auctioned a plastic model kit that had been lost in the back of a cupboard for 11 years. They had bought the kit, a Prybloxx Star Manatee, as a birthday gift for their grandson. It was a popular kit at the time and was difficult to obtain. Unfortunately, their son also managed to buy a copy of the same kit, which forced them to buy a last-minute replacement gift. Their spare Star Manatee

went to the back of a cupboard without ever being played with.

They remembered their purchase when an item on the popular television show *Antique Shock* covered the growing demand for rare plastic building kits amongst collectors. They took the kit to their local auction house for appraisal and it was subsequently sold at auction for V\$8,000.

A leading collector told the *Varanda Daily News* that it was unlikely that many toyboxes would yield anything of such value. In this case, the kit had been scarce, which increased its rarity value. Also, this particular kit was still in its box, which had never been opened, and the bricks were in perfect condition. A typical used Star Manatee, without its box and bearing traces of wear and tear, would normally sell for V\$100 at most.

The most sought-after model kit of all is the Prybloxx Newt King Castle. Very few of those kits were ever sold because the figure of the Newt King proved difficult to mould accurately and because of quality control problems. It is believed that an unopened boxed kit would fetch V\$100,000 at auction. Sadly, there is no way to tell whether such a copy even exists. The chances are that all of the kits that were sold have been played with, damaging the box and potentially losing key parts such as the Newt King figure and the banner that flew above the castle. They were, after all, sold as toys.

Varanda Business Daily

Engineers relive their childhoods

Laboratory technicians in engineering laboratories are placing increasing emphasis on their skills with construction toys when they update their CVs. Despite the growing versatility of advanced technologies such as 3D printers, the quickest and cheapest way to build a prototype often involves the same kits that can be found in children's toy cupboards.



There has always been a use for such toys in engineering design workshops. Plastic bricks can be clipped together in a wide variety of configurations. Working models are generally robust, but they can be glued together if greater strength is required.

Toy manufacturers have worked to sell their products to older children by making them more sophisticated and that has led to the launch of various ranges of engineering kits that include gears, pulleys and other mechanical devices. They can be integrated with one another by using bricks that are designed to place free-spinning axles wherever required. Engineers have discovered that those toys are ideally suited to prototyping their own designs.

Social media sites frequented by design engineers often discuss the relative merits of different model kits. The Ckonstro Giga Crane is generally regarded as offering the best value in terms of providing gears, versatile bricks and motors. The sets cost V\$150 each, but engineering companies often buy dozens of sets at a time in order to ensure that they do not run out of the parts that they need to test their designs.