BIOMIN
Research & Development

Turning science into sustainable solutions

Team Agile

Company Project:
Biomin

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SOLEMN DECLARATION – Company project

Solemn declaration by students

Module: Company Project
Module Code: MBAC 812
Assignment due date: 10 July 2020

We hereby declare that the assignment which we herewith submit to the North-West University as partial completion of the requirements set for the MBA degree is our own work.

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EXECUTIVE SUMMARY:

This report discusses and analyses the business structure and operations of the international feed additive company, Biomin, in order to propose a strategy for improved business practices in South-Africa and Africa. Furthermore, focuss is placed on a proposed marketing strategy to broaden their customer base even during the Covid-19 pandemic.

Biomin is an international company aiming at bringing natural feed additives to promote animal health and safe human consumption. Their secret patented formula is an exclusive recipe to promote animal gut health and promote safe animal feed. Biomin is distributing European-accredited products in more than 140 countries. Biomin South Africa is not the biggest distributor of natural animal feed additives in South Africa, however, their ISO 9001 rating and environmental rating of 14001, combined with cutting edge research and product development is putting them at the forefront in the industry. It can be argued, however, that a company of this magnitude, backed by the best science and technology should be more visible and their products range should be used more in South Africa and Africa.

While the world is staggering under the Covid-19 pandemic, combatting disease and eradicating poverty are constantly brought to the forefront. Expensive import cost, the Rand/Euro fluctuation and cheap imitations by competitors also impact the costing of Biomin’s products and thus influence their stance during the pandemic. The current business environment is more complex and challenging and therefor Biomin should formulate innovative strategies to stay connected with their clients and to add value. More than ever in modern history, the importance of the agricultural sector is in the spotlight. Food security and sustainable agriculture practices for food security are internationally recognised.

Biomin has a roadmap to 2024, but there are ample opportunities for growth in Southern Africa. A well-established strategy will guide Biomin toward these opportunities and will determine the nature and direction of their organisation. This report suggests innovative communication and marketing tools for Biomin, as well as ways to establish better cooperative partnerships to adapt to the new normal.

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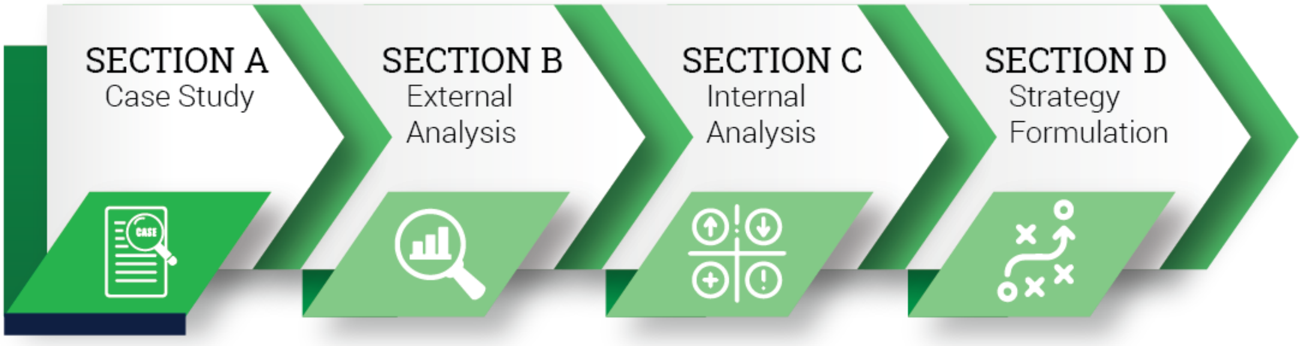
LIST OF ABBREVIATIONS AND KEYWORDS

AGP	Antibiotic Growth Promoters
AMFA	Animal manufacturing feed association
Bagasse	A fiber remaining after the extraction of the sugar bearing juice from sugar cane. It used as a biofuel or as pulp in building materials.
B-BBEE	Broad-based Black Economic Empowerment
BIOMIN	Biomin Animal Nutrition (Pty) Ltd
CIF	Cost Insurance and Freight
CRM	Customer Relations Management
CSR	Corporate Social Responsibility
EU	European Union
HR	Human Resources
ISO	International standards organisation
LEED	Leadership in Energy and Environmental Design
MPO	Milk Producers Organisation.
Mycotoxins	Any toxic substance produced by a fungus
PESTEL	Political, Economic, Social, Technological, Environmental, Legal
Photovoltaic	Relating to the production of electric current at the junction of two substances exposed to light
Probiotics	Denoting a substance that stimulates the growth of microorganisms, especially those with beneficial properties (such as those of the intestinal flora).
SA Feedlot	South African Feedlot Association
SABPP	SA Board for People Practices
SADEC	Southern African Development Community (sub-Saharan countries)
SAFMA	Southern African Feed Manufacturing Association
SAPA	South African Poultry Association

SAPO	South African Pork Producers Organisation
SWOT	Strengths, Weaknesses, Opportunities and Threats
VRIO	Valuable, rare, costly to imitate, organised to capture the value of resources
WPSA	World Poultry Association of South Africa



CHAPTER 1: BIOMIN CASE STUDY

1.1. Introduction and overview

In a world full of everything synthetic and imitated, Biomin Animal Nutrition (Pty) Ltd, hereafter referred to Biomin, brings everything natural. They changed the landscape of animal feed for the better. Many claimed to have a copy of their winning recipe but up to date, nobody could come up with the 100% natural solution that makes feed truly natural and thus make it safer for human consumption.

Feed additives include feeding attractants, immune-stimulants, prebiotics, probiotics, acidifiers, essential oils, or other inclusions. These additives are not legally necessary but enhance the ingestion of feeds. It has an impact on limiting the use of antibiotics. This feed additives market was valued at $19,642 million in 2017, and estimated to reach $31,387 million by 2025, registering a compound annual growth rate (CAGR) of 6.0% in the eight years until 2025. The global animal feed additives market is expecting growth for this period, owing to a surge in consumption of meat products, an increase in concerns over meat quality, and a rise in safety concerns. The outbreak of disease under livestock and poultry are two major concerns as well. Feed additives form an important part of animal nutrition, which improves the feed quality, yield, and quality of food from animal origin, and animal health (Allied Market Research, 2020).

Currently, the global industrialization of meat products boosts market growth, and the demand for meat and meat-based products is expected to double by 2030 in developing countries. Price increases for raw materials i.e. maize, wheat, barley, others, including legal and regulatory guidelines for feed additives influence market growth. In short – the world needs more food, faster, healthier, and safe enough for people to eat.

BIOMIN, a leading company focusing on health in animal nutrition, develops and produces feed additives, premixes, and services to improve animal health and performance, in an economically viable way. Leveraging on the latest technologies and extensive research and development programs, Biomin offers sustainable quality products which include solutions for mycotoxin risk management, a ground-breaking natural growth-promoting concept as well as other specific solutions which address dietary requirements for swine, poultry, dairy, and aquaculture. Biomin has a distribution footprint in over 140 countries including South Africa, with its Head Office in Klerksdorp (North West).

Biomins' market segmentation can be identified as follows:

Segmentation by Product	Segmentation by Species	Segmentation by Form
• Amino Acids • Vitamins • Minerals • Eubiotics • Antibiotics and Others	• Poultry • Cattle • Swine/Pork • Aquaculture • Others	• Liquid • Dry

Figure 1: Segmentation by Product, Species and form

1.2. Biomin History and Timeline

- ***1983:*** Erich Erber opened Biomin in a small warehouse in Pottenbrunn, Austria with a staff of three, starting with a livestock premix product line containing probiotics. Founder Erich Erber named the product and company based on the idea of combining "biological minerals" and so the brand name Biomin was born.
- ***1985:*** Biomin bought Interpremix, a small premix factory, as its first production facility. The acquired firm also made a product called Antitox Plus; the first product available that 'binds' mycotoxins through a process known as adsorption.
- ***1988:*** Biomin signed a research agreement with the University of Veterinary Medicine Vienna, Austria, and Dr.Josef Leibetseder further improved the efficacy

of Antitox Plus to a wider range of mycotoxins. Only several years later the second generation of the mycotoxin deactivation product was launched under the brand name Mycofix.

- ***1994:*** The Biomin brand name was separated from the Interpremix product line. Erber AG became the holding company of Biomin.
- ***2012:*** Biomin finalized the acquisition of Microplus, a Germany-based feed additive producer, and rolled out Digestarom®, a phytogenic feed additive.
- ***2013:*** Biomin receives EU authorization for its multi-species probiotic, PoultryStar·
- ***2015:*** Global Product introduction of Mycofix 5.0.
- ***2016:*** Product introduction of Digestarom® DC – TheFeedConverter.
- ***2017:*** Opening of first ERBER Group North American hub (ROMER LABS and BIOMIN), Kansas City. Grand Opening of the new BIOMIN production site in Wuxi, China.

1.2.1. Biomin International Timeline – start-up to 1998

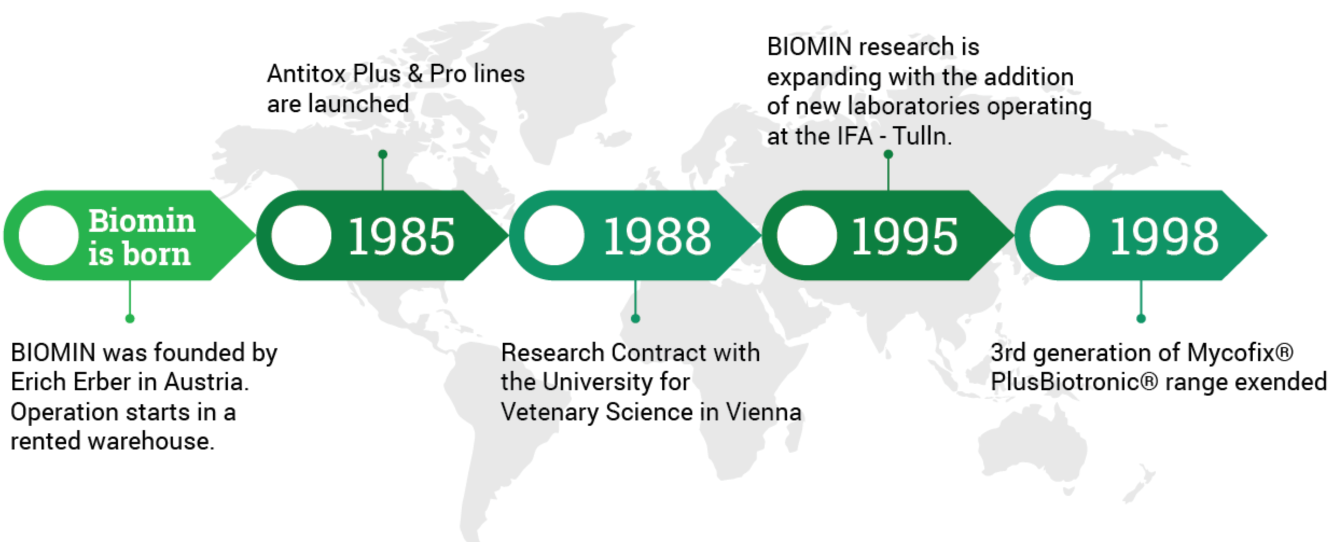


Figure 2:Biomin international timeline until 1998 (Biomin, 2010)

From 1998, Biomin expanded and became a truly global competitor in the natural animal feed industry. In 2011 Biomin South Africa was established.

1.2.2. The Biomin South Africa Timeline

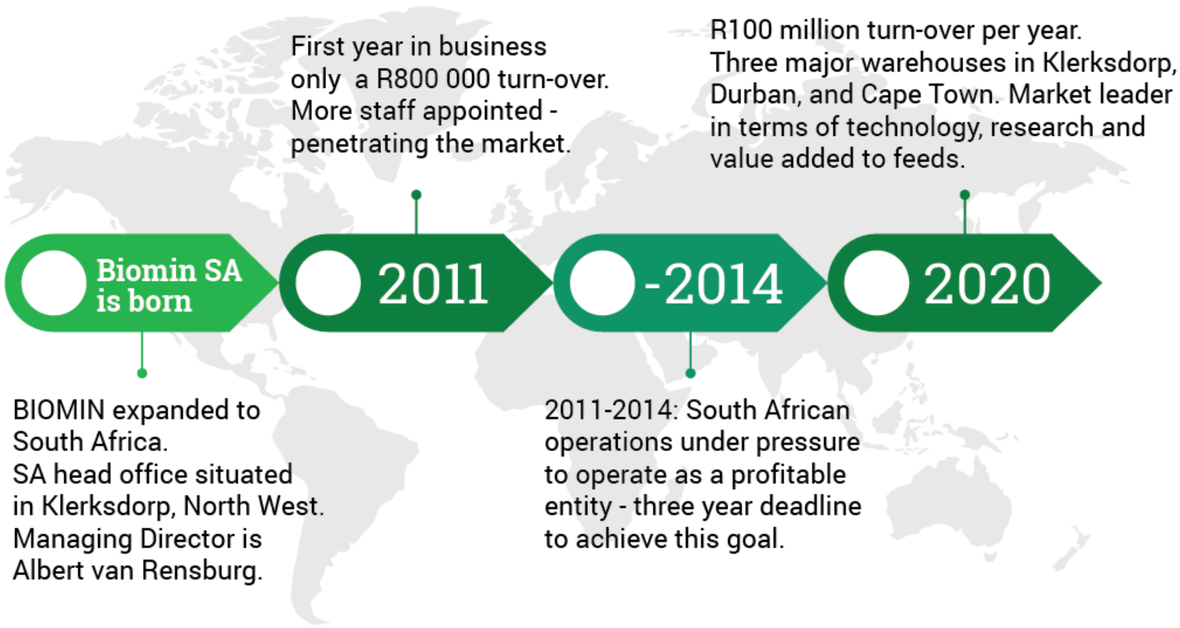


Figure 3: Biomin South Africa timeline (Biomin, 2010)

1.3. Current products in the SA market segment

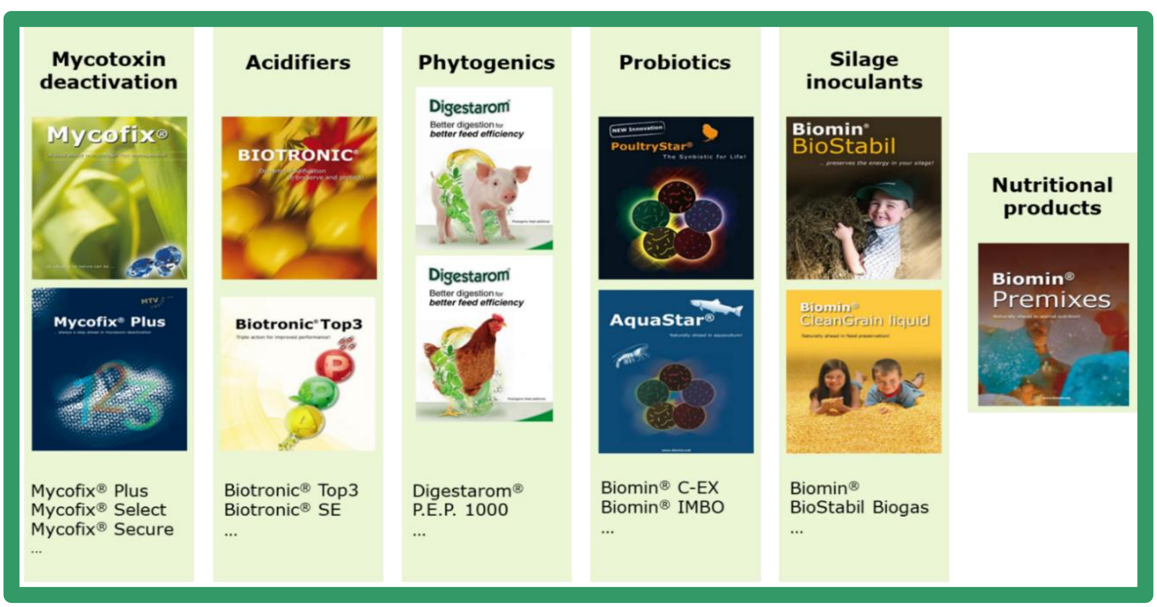


Figure 4: Biomin Product range (Biomin, 2010)

1.4. Biomin in the bigger picture

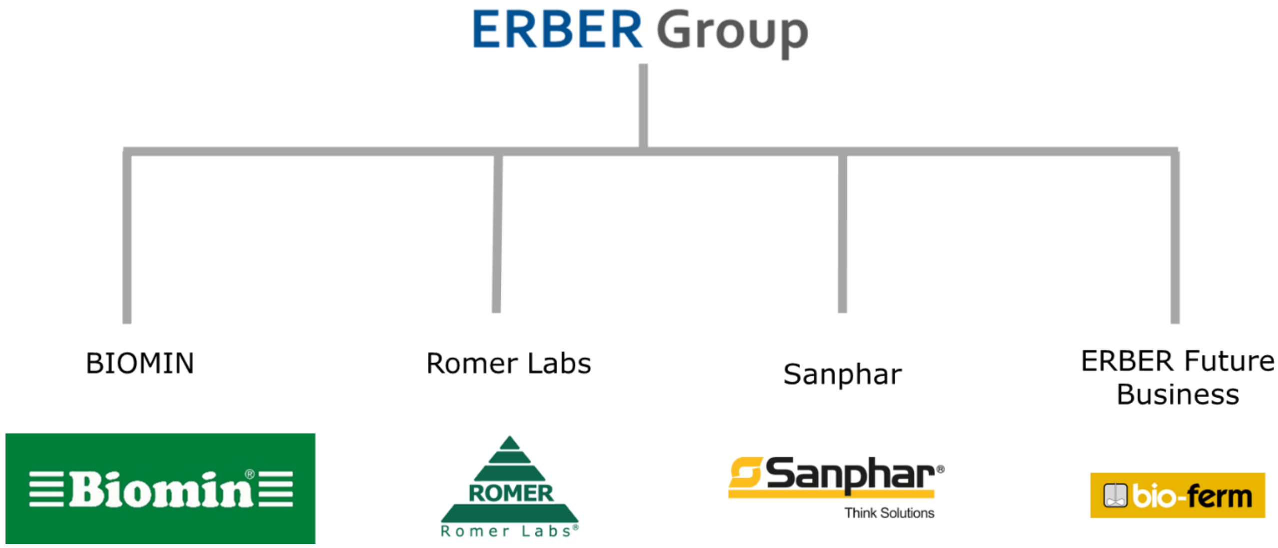


Figure 5: Biomin Company structure (Biomin, 2010)

Biomin is one of four companies under the Erber Group, however, the focus is here on the South African Operations' Organogram:

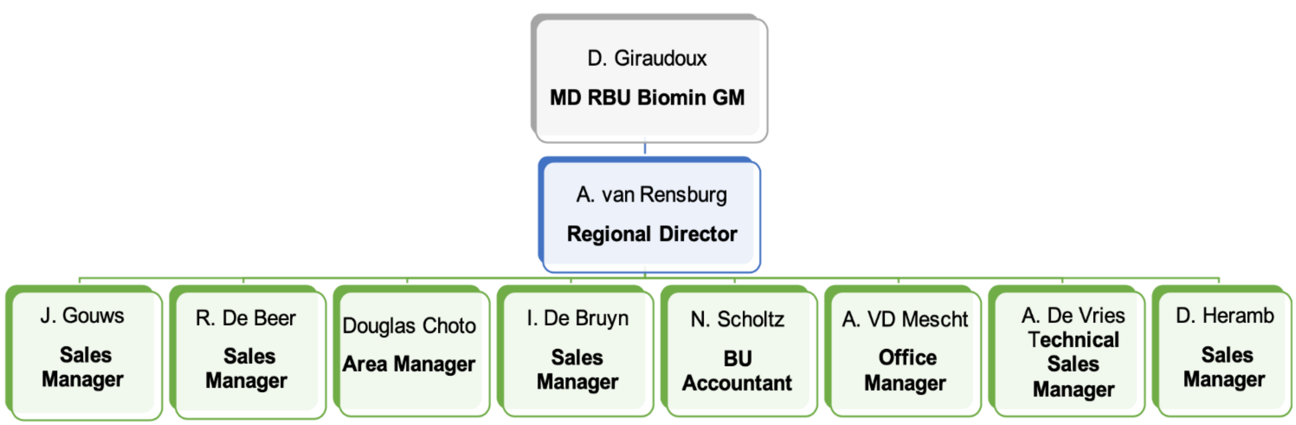


Figure 6: Biomin South Africa Organogram (Biomin, 2010)

1.5. Research and development

All application orientated basic research of Biomin is conducted by its in-house RandD team at the Biomin Research Center (BRC) at Campus Tulln Austria. A total of 80 researchers engage in microbiology, molecular biology, cell biology, analytics, fermentation, bioactive ingredient formulation, and quality control.

Collaborations with global institutions and organisations as well as joint projects with universities and research institutions are carried out to further advance scientific knowledge regarding mycotoxins, feed additives, and animal nutrition. According to the company's information, Biomin currently collaborates with more than 200 academic and research institutions worldwide.

The firm's products include acidifiers, phytogenic, probiotics, silage preservation, and mycotoxin-detoxifying agents. Biomin is considered a market-leading pioneer in mycotoxin risk management solutions. It is the first and only feeds additive company to obtain EU authorization for substances with proven mycotoxin counteracting properties.

- 200 Respected laboratories, academic, and research institutions worldwide**.**
- More than 150 scientific publications per year
- Over 200,000 research hours per year
- More than 200 research and development cooperation partners globally
- Over 30 research projects with EU and national funding agencies - 120 feeding trials per year

Over 12,000 biological samples analysed annually

Figure 7: Location (Biomin, 2010)

1.6. Operations

Clearing and transport procedures for Biomin

All Biomin's stock is purchased from its headquarters in Austria from Biomin GmbH (Mother Company). It takes about 6 to 8 weeks from the date of order before the shipment arrives in Cape Town or Durban Harbour. The stock is cleared by a clearing company called GAC Laser (Pty) Ltd. They handle all the legal requirements with customs and other relevant parties like state vet inspections.

Once GAC Laser (Pty) Ltd receives the containers from the harbour, it is transported to their warehouse, where the containers are unpacked, and empty containers returned to the shipping line. Some of the stock will remain in the warehouse of GAC Laser (Pty) Ltd. It remains to be distributed to all Biomin's clients in the Durban area. A similar process is followed for the Cape Town shipments – the only difference is that they store the stock at the premises of an existing client, Biofarm Bemarking (Pty) Ltd.

This client is responsible to distribute the products of Biomin on their behalf in the Cape region. Biofarm Bemarking has its clients that they sell to from their warehouse. Biomin also uses Biofarm's warehouse to sell directly to their clients.

Once the stock has been received in the Durban warehouse, it will be moved to the main warehouse in Klerksdorp. Biomin has a working relationship with Golden Vision Logistics (Pty) Ltd that handles all logistics from the Durban warehouse to the main warehouse which is situated in Klerksdorp. They are also responsible for distributing all of the inventory from the Durban, Cape Town, and Klerksdorp warehouse directly to Biomin's clients.

Golden Vision Logistics uses subcontractors to transport the inventory from all warehouse to the clients. The main subcontractors are City Logistics that deliver to clients that are more than 200 km from the relevant warehouse to clients. Tate Logistics transports all the inventory from the Durban harbour to Klerksdorp warehouse. Poultra Transport is responsible to deliver large orders from Klerksdorp warehouse to Biomin's clients in a radius of 250 Km.

All smaller loads, less than 500 kg are distributed by Skynet. Louw’s Transport is responsible for the delivery from the clearing agents in Cape Town to Biofarm Bemarking.

From Biofarm Bemarking the inventory is distributed by Intertown Transport. All of the abovementioned subcontractors have the relevant insurances needed for the transport of Biomin’s products, which keeps Biomin’s risk low regarding the transport of goods.

Order processing of Biomin Animal Nutrition (Pty) Ltd

Most of the orders from Biomin’s clients are received electronically by mail. The order is received by the office manager or the accountant. Once the order is received, it will be processed by the accountant. The orders will be loaded on Biomin’s ERP system called Microsoft Axapta. Order is then forwarded to Golden Vision Logistics (Pty) Ltd and the relevant person in charge of dispatch in the relevant warehouses. Golden Vision Logistics (Pty) Ltd will then arrange the delivery of the products, 2 to 3 working days after order is received by Biomin. The relevant warehouse managers are responsible to choose the products ordered by the client and capture the amount and batch number on the Goods Delivery Note (GDN). Once the inventory is delivered to the customer, the relevant transport company will forward the proof of delivery to the accountant or office manager at Biomin. After receiving the POD, only then will the client be invoiced for the order.

Placing of orders of inventory from Biomin GmbH

Biomin GmbH has a dedicated team of employees that handles the processing and arranging of transport of inventory from Austria to South Africa. The accountants of Biomin will place an order to the relevant person in Austria that is responsible for South Africa. This person will handle all the relevant tasks from placing an order at the production plant to the booking of shipping lines to South Africa. Export documents are forwarded to the office manager, who in turn will forward this information to GAC Lazer, the company that handles the clearing of goods.

There is insurance on the goods dispatched from Austria, called Cost, Insurance, and Freight (CIF). CIF is considered a more expensive option when buying goods. This is because the seller uses a forwarder of his or her choice who may charge the buyer more to increase the profit on the CIF transaction. This is an optional service but protects the goods while in transit. Communication can also be an issue because the buyer relies solely on people who are acting on behalf of the seller. The buyer might still have to pay additional fees at the port, such as docking fees and customs clearance fees before the goods are cleared.

Stock Control

Biomin must do a physical stock count of all products every 6 months and relevant information will be captured on their ERP system. Products that have expired or that were damaged will then be written off. Stock will be moved to a quarantine area once it has expired or was damaged. After the stock is removed from the ERP systems, it will be removed from the quarantine area and destroyed. All batch numbers are displayed on the inventory, and the goods despatch note when stock leaves the warehouse. Biomin needs to have good traceability of all the stock that leaves the relevant warehouse. Animal Feed Manufacturing Association (AFMA) will do a thorough audit every second year at all of Biomin's warehouses to ensure that they comply with the relevant legislation. Every second-year Biomin will also be audited for ISO 9001 certification.

Creating Competitive Advantage through product offering

Biomin uses science to stay ahead of the competitors, through their support of animal health and performance. Biomin employs state of the art and brand-named patented technology to ensure profitable and sustainable solutions. Their core business focusses on the feed to the livestock and aquaculture, including poultry, swine, and ruminant industries in more than 140 countries worldwide. Better animal nutrition improves animal health and performance at the same time reducing the environmental footprint and growing revenue (Biomin,2020).

Biomin' major investment is excellent research activities, which results in innovative proprietary solutions. The company uses a research network of partner universities, research institutions, and insights from customers and local communities. The company prides itself that they are years ahead of their competitors and that they have exclusive patent rights to their products (Mycofix®).

Another key element that provides Boimin with the competitive advantage is its focus on improved quality and association with external quality standard certifications, i.e. ISO9001, HACCP Approved, GMP+ Feed Safety Assurance, QS. Quality Scheme for Food and FAMI-QS (Biomin,2020). They value long-term business relationships with their suppliers as part of the value chain and promises product safety and traceability of raw materials, sourcing, and manufacturing.

- Biomin's research and product ingredients are a trade secret.
- By using adsorption biotransformation and bio-protection they neutralise mycotoxins like aflatoxin that is harmful to animals and humans.
- Due to legislation in developed countries, legislation on animal health, and the application of antibiotics, Biomin is natural, legal, and the way forward to eliminate antibiotic dosages that are transmitted to humans upon consumption.
- Their flagship product is Mycofix.
- Legislation on animal feed and the use of hormones and antibiotics in SA are not as strict and controlled as in developed countries

1.7. Marketing

Direct marketing channels to feed mills/premixes, big/medium-sized farms, and to contractual partners. Nutritional specialists in different areas have allocated clients and aim at recruiting new customers.

Biomin Head Office in Getzersdorf designs and strategises the marketing plan for all branches across the world.

Advertisement designs are done by the head office marketing and design team and distributed to all in the group. In South Africa, the team tries to customise the designs to better communicate with the local market. Designs are also translated into Afrikaans to service the large Afrikaans speaking farming community.

Targeted advertisements are placed in specific niche magazines that include Agricultural magazines, corporate magazines. Research and scientific platforms are also used. Different platforms are used to do one on one promotion e.g. at trade shows like the Agri SA, Nampo Harvest Day, and other agricultural focused events.

Social media is also utilised to reach producers and agricultural role-. players – e.g. Biomin (Biomin,2020).

The marketing team monitors browsing habits and hits to generate content and information.

Biomin's product portfolio consists of the following products:

Figure 8: Source: Biomin, 2010 - A compilation of advertising campaigns by Biomin.

The latest South African Brand Tracking results were done in March 2020. This report will be discussed in more detail. (Appendix 1)

1.7.1. Boston Matrix

The Boston Matrix is a growth-share matrix that aids businesses in analysing their portfolio of companies and brands. Most large companies own a portfolio of products. One problem or issue with owning a product portfolio is the allocation investment in research and development and new product development and product promotion across the portfolio.

Boston Matrix is a powerful tool, divided into two categories, to analyse products:

- Market share – Does the product currently enjoy a low or high market share compared to its closest competitor

- Market growth – What is the demand for the product in the market currently; and is the customer base increasing or decreasing

Boston Matrix makes a series of critical assumptions:

- Investment in marketing can earn you a market share
- Market share gains will always generate cash surpluses
- Cash surpluses will be produced by gaining market share, and while the product is in the maturity stage of its life cycle
- The best time to build your dominant market position is during the growth phase

The four categories of the Boston Matrix can be described as:

- **Stars** are the product that has a high growth rate when competing in a market against strong competitors. Usually, stars require heavy investing in sustaining market growth. When the growth of stars starts to decrease and the investment needed to increase growth outweighs the value of the product, but they keep their market share, they will move over and become cash cows.
- **Cash cows** are the product with a high market share but a low-growth rate. These products need little investment because they have reached the maturity phase of the life cycle; they, however, need to be managed for continued profit. This will continue to generate a steady cash flow to allow the company to develop Stars
- **Question marks** are products with low market share operating in high growth markets. Management must look at the product and decide if the investment needed to grow the market share is a good investment or is it better to allow the product to die and instead focus on the Stars
- **Dogs** is a term used to describe products that have a low market share in unattractive, low-growth markets. Dogs usually generate enough cash to break-even. Dogs are typically sold or closed because investing in them would not be a financially savvy decision due to the market segment or the product type.

Biomin's products classified according to the Boston Matrix:

Biomin's Mycotoxin binders are :

- Mycofix Secure
- Pycofix Pro-tect
- Mycofix Select
- Mycofix Plus

Workings of the different Mycotoxin binders:

	Aflatoxin	Endotoxins	Bioprotection (liver & immune support)	Fumonisins	Dioxivelanol	Zearalenone
Mycofix Secure						
Mycofix Pro-tect						
Mycofix Select						
Mycofix Plus						

Table 1: Mycotoxin binders (Biomin,2020).

Different binders are used depending on the severity and kind of mycotoxins encountered on the relevant animal feed. Mycofix Secure and Mycofix Pro-tect are new products registered in South Africa. The purpose of these products is to compete with cheaper alternatives in the market.

Mycofix Secure and Mycofix Pro-tect will be the rising Stars of Biomin according to the Boston Matrix. Big investments will be needed to gain market share. Most of the competitor's products compete in this sector. The competitors claim that they can effectively manage Fumonisins, Deoxynivalenol, and Zearalenone, but none of their claims can be scientifically verified by peer-reviewed papers and proof of registration. That is the reason Biomin decided to enter the segment of the market.

Mycofix Select and Mycofix Plus are the cash cows of Biomin. 70% of all sales in Biomin derives from Mycofix Select and 20% from Mycofix Plus. These are mature products with a significant market share. These products are the flagship products of Biomin. Mycofix Plus and Select are constantly improved, to include the pure enzymes to eliminate mycotoxins. Fumzyme is the first enzyme that Biomin has produced that will eliminate Fumonisins. In February 2021, Biomin will include Zenzyme that will eliminate Zearalenone.

Biomin's probiotic products are :

- Poultrystar ME
- Poultrystar Sol

Biomin's probiotic products have an exceedingly small market share. The reason for the low sales is that antibiotic growth promoters in animal feeds are not yet banned in South Africa by the government. The EU has banned the use of AGP's for more than three decades. The reason for the ban was that antibiotics were oversubscribed to animals and humans, which decreased their effectiveness and increased the resistance to bacteria. This could lead to a catastrophic loss of our biggest weapon against infections, antibiotics. Probiotics are beneficial bacteria that are found in a healthy animal's gut. A healthy animal gut is more resistant to bacterial infections and increases their growth performance. Probiotics are at this stage the only weapon we have at producing meat without the use of AGP's

These products can be a rising star for Biomin according to the Boston Matrix. The government will inevitably ban the use of antibiotics. Biomin has invested heavily in trials to show the potential of these products. The meat producers are well educated in the benefits of using a probiotic. Biomin expects a huge increase in sales as soon as AGP's are banned.

Biomin's Essential oil products are:

- PEP MGE 500
- PEP Liquid
- PEP Sol

These products are used in conjunction with probiotics. The products are essential oils and natural plant extracts that improve the gut health of an animal and is beneficial for the digestion of feed. As with probiotics, this product is a rising star according to the Boston matrix. Its sales will grow in conjunction with prebiotics as soon as AGP's are banned.

Gut health products include:

- Levabon Rumen E
- Biotronic Top 3
- Silage inoculant.

Biotronic top 3 is used in feed hygiene. When salmonella is present in the feed, it can have a devastating effect on the poultry industry. Biotronic Top 3 is an acidifier that decreases the PH of the feed that is not beneficial for salmonella and other bacteria to grow in the gut of the animal. This gives the animal the chance to have good bacteria settle in the gut.

The outbreak of bacteria like salmonella is not a frequent event. That limits the sales volume of this product. Although it is not a cash cow, it does not deserve to be a question mark according to the Boston matrix.

Silage inoculants are used in the production of silage. Silage plays a major role in the dairy and feedlot industry. A large percentage of the feed that they consume consists of silage. Silage inoculants are bacteria that preserves the silage. It decreases the chances of fungal infection by producing lactic acid and acetic acid. These acids preserve the silage and eliminate any fungal growth on the silage.

Silage inoculant has low volumes and is not a major contributor to Biomin's sales. Silage inoculants cannot be classified as a question mark but will never be a cash cow due to its seasonality and low volumes.

Levabon Rumen E is an inactivated yeast used in the feedlot industry. It is beneficial for the digestion of fibre in the gut of cattle. Their sales are extremely low and are considered as a dog according to the Boston matrix. It will be beneficial for Biomin to stop selling the product because it normally expires before it can be sold and is a big cause of loss in the company.

1.8. Finance

The board of Biomin has a policy of a 15% increase in sales every year. That means that their sales should double every 5 years. Because Biomin's sales are dependent on the welfare of the farming community, we can see that their sales follow the trends of droughts in South Africa as shown in Table 2, below, 2015 was an exceptional year with a 50% increase in sales. 2016 South Africa had a devastating drought year and the sales had negative growth of 23%. Due to the continuous drought in the Eastern Cape from 2018 through to 2019, the sales growth percentage has again dropped to 16%. If the average of the sales growth percentage is taken from 2015 to 2018, Biomin were on target to reach their goal of 15% increase per year, keeping in mind to reach the double of sales every 5 years. Due to the continuous drought in 2019, we see again a drop in the sales growth percentage in 2019. This trend is inevitable and needs to be taken into consideration when looking at sales performance.

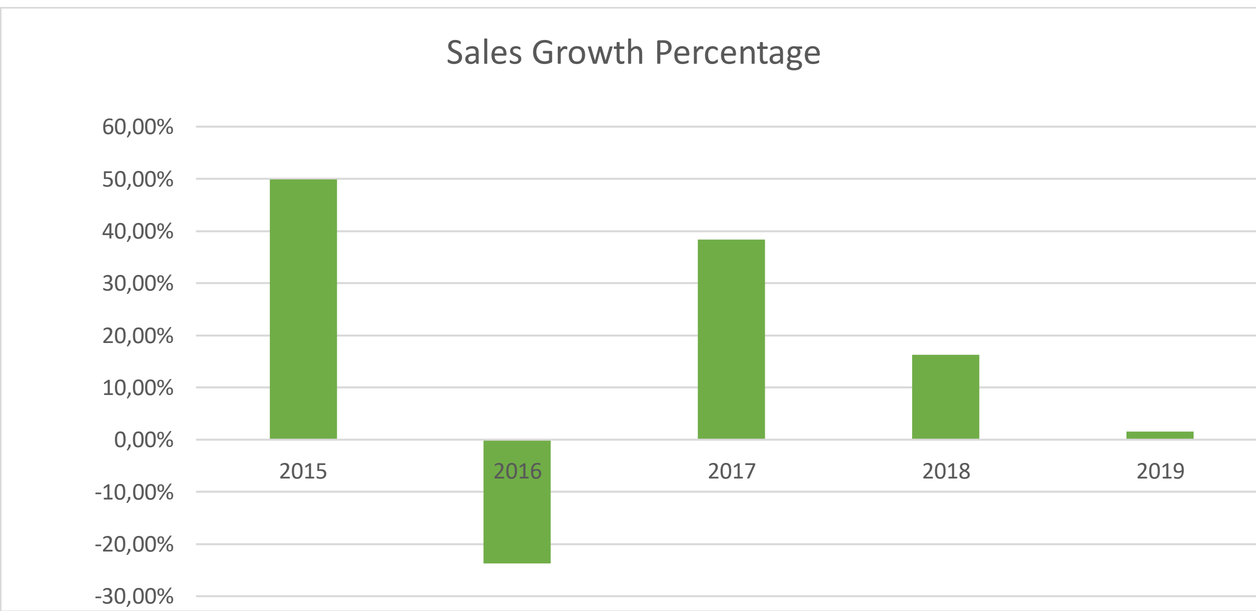


Table 2: Sales Growth Percentage

Biomin's quick ratio was 0.26:1 in 2015, 0.27:1 in 2016, 0.47:1 in 2017, 0.38:1 in 2018 and 0.54:1 in 2019. This trend is worrisome as Biomin will not be able to pay its short-term debt. Biomin’s only creditor is their holding company Biomin GmbH and derives from purchasing stock from them. The quick ratio results are also since Biomin needs high stock volumes to ensure that they can supply to the market without running out of stock. It takes at least 6-8 weeks from placing the order until it lands in Durban harbour.

Biomin has a satisfactory return of sales from 2017-2019 above the 6% mark and is 8.67 in 2019. Due to new products that Biomin has launched in June 2020, Biomin can expect a drastic increase in return on sales. The new range of Mycofix 5.0 has a gross income percentage of 45% compared to 32% of their Mycofix 3.0 range. 80% of Biomin’s sales derive from the sale of Mycofix.

One of Biomin’s biggest expenses is the difference in exchange rates. It is difficult for Biomin to continuously change prices to follow the trends of the exchange rates. Most of Biomin’s customers request a quarterly price from them to quote feed millers and producers. Due to the Covid-19-19 pandemic and the downgrading of South Africa’s credit rating had a devastating effect on the exchange rate and will severely affect the 2020 financial position of Biomin. Biomin has increased its prices in June to mitigate the exchange rate differences.

1.9. Human Resources

Human resource functions relating to the corporate identity of Biomin remain constant throughout the company, but factors like labour laws are taken into the South African context and follow SA regulations. Biomin is one of four companies under the multi-national Erber Group and therefore follows many regulations of national and international standards. The SABPP (SA Board for People Practices) guidelines are adhered to when dealing with HR practices in the South African context and appointments of new staff need to be approved by HR at headquarters, but the sourcing of potential candidates to work within the SA company is done by Albert van Rensburg, the Regional Director. Talent development is of great importance to Biomin SA as the business strives to develop the skills of employees and use this as a competitive advantage. Aligning objectives with incentives implies that employees are recognized, and their value to the company is not overlooked.

Being an ISO9001 and ISO14001 company means that management gives close attention to production processes, standards, and quality. The health and safety, and environmental requirements for the workplace are strictly adhered to. Biomin does not have a high staff turnover as job security and job satisfaction is of a high priority to the company. Numerous studies have examined the relationship between how well-integrated HR is with the business strategy and business performance (c.f., Bennett, Ketchen, and Schultz, 1998; Huselid, 1993; Martell and Carroll, 1995; Wright, McMahan, McCormick, and Sherman, 1998). Therefore, Biomin constantly focuses to keep all SA employees on board with the strategic planning and steps that the organisation takes.

1.10. Technology

Technology can be deemed a blessing or a curse in many instances – as computer errors and a breach of security, hacking, etc. can compromise your daily operations and bring your business to an abrupt halt. At Biomin different types of technology are used for different segments of Biomin and stakeholders'' businesses. It is used in science and predictions, for the day to day business management and technology designed for their clients. As indicated in the table below:

Biomin Technology
Scientific Technology for product development and competitive advantage and credible predictions: Mycotoxin Prediction Tool • The first global prediction of mycotoxin risk • For the coming harvest • Collects data from 60 000 weather stations Digital tools for animal gut health assessments This can detect gut problems early, which can be treated fast and effective Metagenomic Sequencing (see figure below). Latest technology in their Romer laboratories internationally
Day to day business systems to keep the business afloat • HR Systems online • Data storage online • Stock control

• Logistics • Payroll • Debtors
<u>Technology for their clients</u> to ensure added value to their agri-business and to farm in a sustainable, and profitable manner. Digitalization across all segments (poultry, pork and beef) Health- and disease control Lameness • Mastitis etc. for different animal types – also preventative. Gut Health Assessments Measure Performance: Milk yield • Weight • Feed intake, etc. Reproduction and well-being Comfort • Individual animal monitoring • Feed control • Medication • Sorting • Automation • Feed control • Medication • Egg collection • Performance: • Bodyweight Digitalisation and automation for sustainable businesses. Labs producers can use to test their grain/feed

Table 3: different types of technology

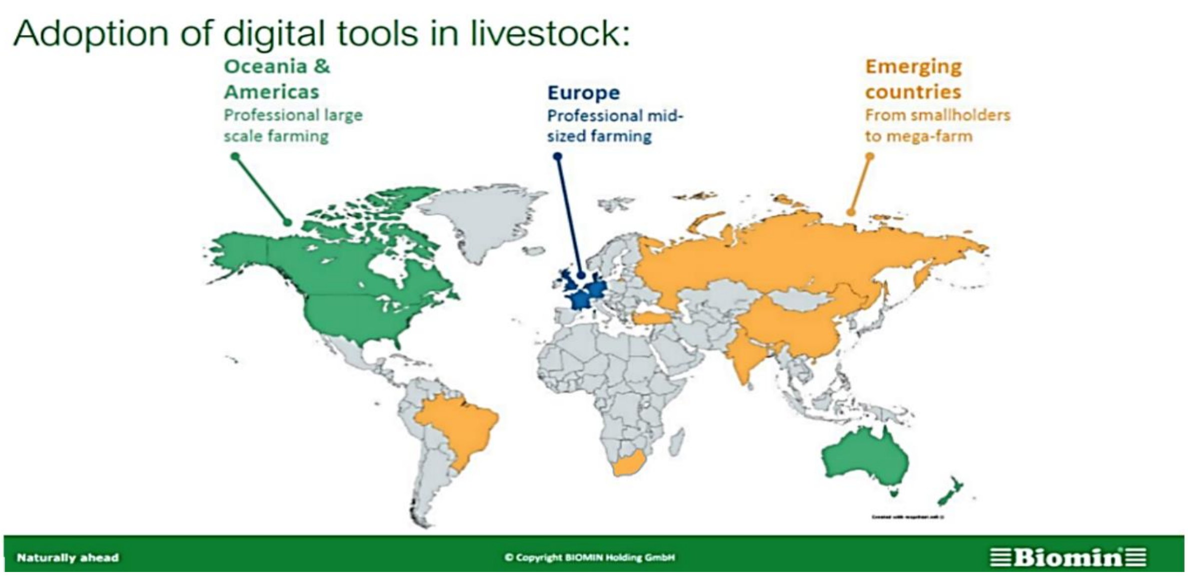


Figure 9: Adoption of digital tools in livestock map (Biomin, 2010)

1.11. Sustainability and Risk Management: Biomin's triple bottom line

At Biomin they pride themselves in the fact that they convert risks into opportunities. Therefore, the abuse of antibiotics has serious risks on human health but also animal well-being. Biomin is a part of ERBER Group, which has committed to sustainability by setting a goal to be carbon neutral by 2023.

The offices and plants have their own solar energy, better isolation for internal climate control, and technology for using bagasse biofuel for heat and energy production. As a result, more than 90% of the energy demand is covered by renewable energy sources

The headquarters at ERBER Campus, is equipped with an insulated shell, has groundwater heating and cooling, ventilation systems that include heat recovery and photovoltaic energy, is the first building in Austria to achieve platinum class LEED (Leadership in Energy and Environmental Design) certification from the US Green Building Council.

> "In addition to the implementation and certification of environmental management system ISO 14001, BIOMIN has carried out a full life cycle analysis (ISO 14040 and ISO 14044) to quantify the environmental impacts associated with the life cycle of all products.
>
> Biomin became the first feed additive company worldwide to be fully certified under the Life Cycle Assessment of the US Environmental Protection Agency in 2011.
>
> Sustainable solutions for producers
>
> The main contribution of Biomin to sustainability is the application of our solutions in feed, water, and livestock, which results in improved animal health and performance.
>
> Greater efficiencies gained through an application of Biomin solutions result in a reduced environmental footprint, improved food safety and food security, reduced antibiotic use, and greater economic benefits Biomin,2020)."

King 4 Report, key concepts, and triple bottom line:

King IV encourages companies to apply historic data to formulate strategy to be forward-thinking and holistic in their approach to business and governance.

Here are the seven points outline some of the biggest concepts in King IV:

1. Risk and opportunity governance is a new concept in King IV and is based on the belief that risks can be seen from different perspectives.

2. There will be a significant focus on stakeholder inclusivity and response.

3. Technology and information are building blocks according to King IV.

4. The board is ultimately responsible and accountable for ethical governance.

5. Dispute resolutions do not end at the point of resolution.

6. Auditing committees must consider the audit firm – client relationship, significant management, and audit partner rotation and non-audit services rendered to the client – when overseeing auditor independence.

7. Reports from internal audit, external audit, and the board are not sufficient, and must now include reports from line managers and specialists.

King IV promises to integrate business in a way that uplifts and empowers organisations and their stakeholders. From King II it was proposed that organisations move towards a triple bottom line foundation, focusing on the economic, environmental, and social impact that a company had. King III introduced the concept of the triple bottom line reporting, where profit, planet, and people were taken into consideration when reporting on performance. Since the release of the King III, there have been significant global developments in corporate reporting.

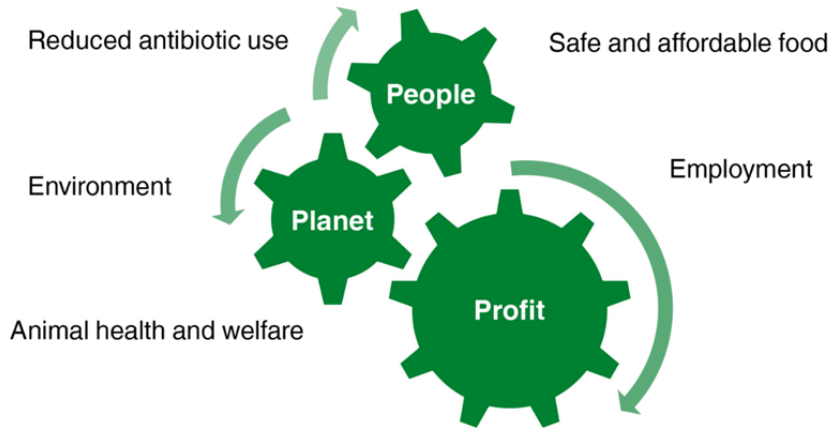


Figure 10: A schematic representation of the triple bottom line.

1.12. Strategic Overview

1.12.1. Vision, Mission, and Values

Thompson et al (2017:36) explain that a strategic vision should be in writing and should explain the underlying principle and direction to all employees and stakeholders. Biomin's vision is:

We care for healthy animal nutrition - Naturally ahead.

"The mission statement describes the organisations current business and purpose (Thompson et al., 2017:37). It is an enduring statement of purpose that distinguishes a company or business from others in the same business environment or type (Fahy and Jobber, 2015:12). It describes the organisation's product and or service, the needs it aims to satisfy, the customer groups or markets, its approach to pleasing customers, and the identity of the organisation (Thompson et al., 2017:38). The Biomin mission states:

> We harness the power of science to support animal health and performance. By applying state-of-the-art and proprietary technology we deliver natural, sustainable, and profitable solutions to the feed and livestock industry. Naturally Ahead.

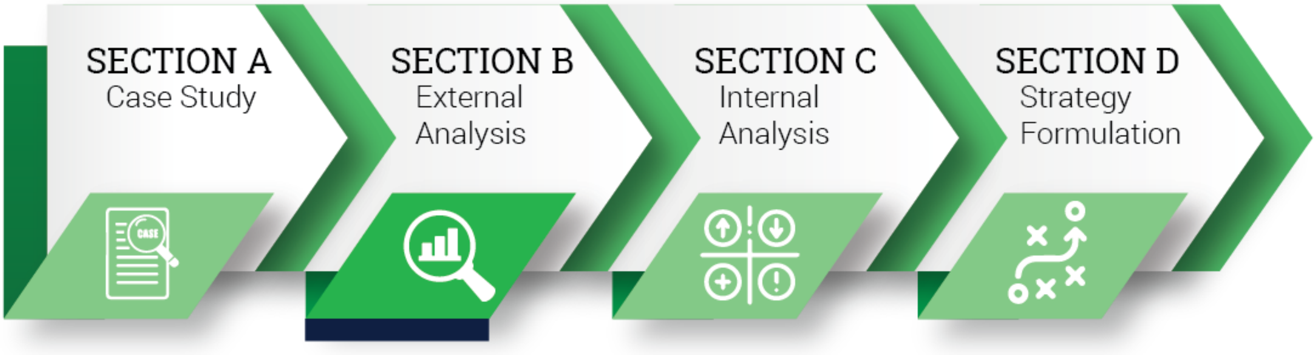
Whilst the vision statement indicates the strategic direction of the organisation, the mission statement indicates what needs to be done during this voyage, and the values 65 of the organisation explain how things will be done daily (Lazenby, 2016:38).

The company values establish behavioural beliefs and norms for employees. Biomin's values are linked to the vision and mission and equal the triple bottom line of accountable and sustainable business run by good corporate citizens:

> We are Pioneers, Partners, and Performers. We are committed to our customers, performance-oriented innovation, a corporate culture that nurtures and recognizes talent, and respect for both people and the environment.

1.13. Academic questions and assessing the organisation:

1. How good is Biomin' operational efficiency, motivating reasons for their success, and or lack thereof?
2. How well does the organisation utilize human capital to achieve a competitive advantage, meet strategic goals, and improve overall organisational effectiveness?
3. How does Biomin evaluate competitor activity, driving strategic differentiation through core competencies?
4. How well does the company's current position align with its strategic vision and how do these initiatives align?
5. What measures can Biomin take to optimise their marketing strategy and brand awareness?
6. How can the company's corporate responsibility and being a good international corporate citizen be described?
7. Analyse Biomin's vision and mission.



CHAPTER 2: EXTERNAL ANALYSIS

2.1. PESTEL

2.1.1. Introduction

Executives must be aware of trends and changes in the general environment, as well as the condition of their specific industry, as elements of both have the potential to change considerably over time. While PESTEL analysis provides a useful framework to understand the general environment, Porter's five forces analysis is helpful to make sense of an industry's profit potential. Strategic groups are valuable for understanding close competitors that affect a firm more than other industry members. When executives carefully monitor their organisation's environment using these tools, they greatly increase the chances of their organisation being successful (Manktelow, 2020).

Biomin operating in over 140 different countries and South Africa is one of their markets, politics will have a big impact on their operations in these markets. Challenges in the South African Market context include social transformation, inequality, political and service delivery unrest. Status inequality and income inequality undermines business growth and pose a direct threat to broader economic growth. The high levels of unemployment, the high levels of credit and the debt of the South African consumer, the extremely low levels of saving exacerbate further political impact. This has an indirect effect on foreign direct investment, with high-interest rates for loan repayments. Biomin also has to consider the electricity blackouts from ESKOM, skills and resource shortages, including South Africa's poor economic growth, which has contracted from 1.7% to 1.5% for 2020. SA finance minister further projected that the South African economy, against the backdrop of global growth, will grow by 0.9% and inflation will average at 4.5% (Mboweni, 2020). Poor market regulation on animal feed standards and medicine poses a threat to Biomin' operations and revenue. The Annual Budget speech 2020 also highlighted an increase in excise duties, which have a tax implication on a company's revenue.

This analysis is vital for a management role since it influences decisions that managers can make regarding the macro-environment that the business is operating in. it contains political, economic, social, technical, legal, and environmental determinants of managerial decisions. In the case of poultry, Biomin's environment is affected by these factors that are discussed in detail.

2.1.2. Political Environment Analysis

Biomin' product development (including manufacturing), distribution and product sales, government/s remain the major regulator. According to Mboweni (2019), the budget is built on six fundamental prescripts, of which one is increasing tax collection and the nation is ready to invest. This means that organisations like Biomin will have to gear themselves for possible increased tax payments. The rationale for increased tax collection is to avoid the government debt trap and to minimize the portion paid as interest to government debt. However, the impact of tax increases on the consumer and organisations at large like Biomin cannot be ignored as the state aim to increase revenue collection.

A benefit to increased taxes also means increased spending on infrastructure development, which could increase economic growth and create more jobs at the grass-root level. This also means regulations become more stringent and increase taxes around Biomin product range, product offering and the industry at large.

Further political impacts on Biomin is the issue around the land reform projects, where minister Mboweni (2020), indicated that R1.8 billion has been allocated to 262 priority land reform projects. The minister also committed an investment of a projected spend of R3b through the Land Bank in the medium-term budget speech. The Land Bank has liquidity challenges that were highlighted in February 2020 to the minister of finance. The Land Bank has been downgraded by Moody's in March 2020. COVID-19-19 has an impact on the SA economy and consequently on the food system. A deteriorating cash flow, access to funding and their liquidity position Biomin also strives to adhere to the European Union standards on Corporate Governance in all host countries, regardless of lower environmental standard requirements by the host country.

COVID-19 Impact: The immediate result of the Corona Virus when declaring a state of emergency, had dire economic results as described below in the economic analysis. With governments closing their borders for international travel and imposing restrictions on cross border trade, the impact had far-reaching results on interest rates, imports/exports and revenue collections. Authoritarian governments have used the pandemic to impose tighter controls on media, news, and community liberties. The balance on impact indicates that COVID-19 favours undemocratic trends and authoritarian regimes (Barbieri on COVID-19 impact: How the pandemic affect politics, 2020). Governments have a responsibility to draft policy documents that ensure continued supply chain and logistics, a flow of information and communication of various key sectors. Poor handling of COVID-19 by the Japanese government resulted in the cancellation of the Tokyo Olympics and Iran's lack of urgency to lockdown increased the spread of the pandemic to the Middle East (World Economic Forum, 2020). The South African government's prompt response to the pandemic has enabled health care to prepare for when Covid-19 reaches its climax. This handling and approach to the pandemic by the South African Government is beneficial to Biomin as economic activity can quickly return to normality and organisations can start building on economic recovery.

Political business analysis

Many political activities have impacted the South African poultry market both positively and negatively. To start with, South Africa has become one of the competitive countries within the global market as far as poultry industry is concerned following the introduction of the master plan done by the ministry of trade and industry of South Africa. This announcement was aimed at stimulating the local demand of poultry and all related products, to elevate the South African poultry export levels as well as to protect the South African domestic poultry industry (DeGhetto, Gray and Kiggundu, 2016). On this same note, the objectives of this master plan were to be the driver of this industry with all players included transforming the entire South African poultry sector. Following this action of the South African government, poultry industries such as Biomin got an opportunity to increase their market share and find their products to the market. On top of this, the government remains to be the key regulator of the revenue collection which is done by imposing a percentage of tax rates of products including poultry products that Biomin trades on. Whenever the government increases taxation rates on products, many organisation get affected in one way or the other. In the case of Biomin, this means that inflated costs are involved for poultry products manufacturing infrastructure which reflects hiked costs of final products. In the final stage, clients of these poultry products may develop an attitude towards the hiked prices which may result in looking for other alternative sources of poultry products.

2.1.3. Economic Environmental Analysis

Macroeconomic conditions that affect Biomin is the slow growth of the global economy, limiting export growth into Sub-Saharan Africa. Global Economic Prospects Slow Growth Policy Challenges: projects global growth at 2.5% for 2020, but trade tensions create uncertainty (World Bank, 2020). The minister in his Budget Speech 2020 referred that Global growth is expected to strengthen to 3.3%, with 5.8% growth expected in Asia and the second biggest growth region as Sub-Saharan Africa at 3.5% (Mboweni, 2020). There was also a productivity slowdown particularly in emerging markets with high levels of Government debt accumulation. Countries like South Africa with an appetite for the borrowing of around R1.2 billion per day excluding weekends will still recover from the global economic slowdown in previous terms (Mboweni, 2019). If the global economy can maintain the growth trajectory in the medium to longer-term (12-36 months), emerging economies can recover and show growth. South Africa will have to stabilize electricity supply, provide macroeconomic certainty, open trade markets, and lower the cost of borrowing (gross debt to GDP).

Covid-19 19 Impact: Covid-19 severely impacted the global economy, whereby February 2020 the outlook on the global economy was a 3.3% growth year on year. The global impact of the pandemic is currently a contraction of 5.2% for this financial year. World unemployment rate has reached its ultimate high and unemployment increased to 30.1%

in South Africa. Further to this unemployment increase, the South African economy is expected to contract by 7.2%, which is 2% higher than the global economy. South Africa's open economy is mainly reliant on export and this is greatly affected by a decline in the global demand and restrictions to the global economy (Mboweni on Supplementary Budget Speech, 2020).

21% of tax revenue collections services interest on historic government debt, which drives up inflation and interest rates, but lowering government debt, will reduce interest rates. Gross tax revenue projections have been decreased by 11.7% 2020/21. A 500 billion Covid-19 support package has managed to reduce interest rates in the short term and enabled banks to lend money (Mboweni on Supplementary Budget Speech, 2020). This is important for the commercial farmer that make use of Biomin' products and enables stabilization of sales or a slight increase in performance. Commercial banks in South Africa have provided over 30 billion through a relief fund to customers. Various other organisations have assisted consumers through payment holidays and rental relief, which provides short term sustainability and free up cashflow. This is imperative for the farmer and allow him to restore business and continue supporting Biomin' products, which is priced slightly higher and aimed at a niche market. The South African government also made available a 3 billion rand to recapitalize the Land Bank, which holds 29% of the agricultural debt. This aims to craft a long-term strategy for recovery and restructuring.

Economic analysis

According to the master plan put in place in South Africa, the main aim is to pave the way and foster economic growth. This is because the local poultry market finds value and increased poultry farming in terms of their financial growth as there is an increased market for various products. Furthermore, organisations operating with the poultry industry are experiencing growth that requires more infrastructures to be put in place hence creating more job opportunities to local residence (Vahdatpour, 2018). When the local market expands and exports boosted as projected in the master plan announced by the ministry of trade and industries, more demands on poultry products are not only rising in the local market but also in the world's market which is bringing on board various economies, both stable and developing together.

2.1.4. The Sociocultural Environmental Analysis

The increase in consumer demand for natural and environmentally sustainable food sources that are low in antibiotics and steroids, Biomin's approach to manufacturing additives, places the company at the forefront of its competitors (Van Rensburg, 2012). The threat of antibiotics to human consumption (indirect consumption) which could result in resistance to antibiotics through meat residues. However, Biomin produces additives and premixes that improve animal health and performance (Van Rensburg, 2012). The aim is to ensure the development of sustainable products that are organic and thus reducing the company's carbon footprint.

Biomin South African regional head office situated in Klerksdorp mean distribution from this city to places like North West, Free State, Northern Cape, and Limpopo, etc. considering the distribution to where feed millers are situated around the country to improve efficiencies and maximises profits.

Sociocultural environment

Following the growth in both economic status and technologies that expand the market, the demand for poultry product has greatly seen Biomin some steps head. The kind of manufacturing and marketing strategies have been impacted by the increased customer demands for poultry products and Biomin has gain grounds in its products such as avian nutrition, chicken feed supplements and poultry feeds additives which are at the top as far as effectiveness is concerned. This has made Biomin poultry product to record top high performance within the market over other competitors.

Biomin is one of the manufacturing companies that have put in place measures to ensure green production to minimize chances of endangering living organisms. This has been managed by acquiring certification several environmental management systems such as the ISO 14001, ISO 1040 and ISO 14044 which are associated with the environmental considerations in the entire products life cycle (Du Pisanie, 2017). Furthermore, to be able to address carbon footprint, Biomin has invested in renewable energy such as solar panels and making use of bagasse in producing heat and energy as well as other energy conservation measures such utilizing better insulation technologies. In general, renewable energy utilization in production at Biomin stands at 90% of the entire energy demand in the company which makes it an environmentally friendly and hence considers humanity.

Covid-19 Impact on the socio-cultural environment:

Biomin's megatrend of sustainability with a focus on protein economy could address the socio-economic problems created by the Corona Virus outbreak. Part of Biomin's focus is aimed at producing affordable food, generating employment, reducing the environmental footprint, ensuring their health and welfare through the responsible use of antibiotics (Vanbrabant, 2018). This approach relieves the pressure on health in South Africa, who already seen a proposed budget of 21.5 billion for Covid-19 related healthcare (Mboweni in Supplementary Budget Speech, 2020).

2.1.5. Technological Environmental Analysis

Biomin through technology is increasing their reach to customers on platforms like social media and organisationally specific applications that are used by their field teams and customers alike. The existing technology uses new product development and increased research ensures that the company have a competitive edge. The company's use of artificial intelligence and augmented reality, through its research and development program. Biomin also uses the latest technology to unlock animal genetic potential with the aim of a good return on investment for the customer. The company have a premix facility in Vietnam that focus on sustainable and profitable farming, using a micro-dosing system and state of the art technologies. Biomin S.A. international operations allow it to gain access to these technological advancements that provide a competitive advantage.

Technological environment

In the world today, several technologies have been put in place to help in sourcing of raw materials, conversion of the raw materials to finished products as well as connecting to the market. By use of the latest technologies in research and development of various poultry products, Biomin has been able to stand out in the market as the leading providers of natural, profitable and sustainable solutions to the poultry-related challenges (Mottet and Tempio, 2017). Biomin has state-of-art equipment with latest technologies for research and manufacturing poultry products that lead to top quality outcome making the company's products to be many producers' choice hence larger market share as compared to other companies dealing with poultry products.

Covid-19 Impact on the technological environment:

An immediate result of the lockdown was an increase in the use of technology devices with ordinary South Africans and all mobile networks have highlighted an increase in data traffic. The subsequent result was the availability of additional spectrum by the regulator (ICASA) to help manage the increased demand in network traffic. Biomin has an opportunity to leverage this immediate increase in the use of technology to access, procure and solve consumer problems, with the use of Metagenomic Sequencing Technology.

2.1.6. Ecological Environmental Analysis

The impact of Biomin operations with a 360 view on the environmental impact including product testing. This will assist the company to identify any unsustainable supply chain practices and processes. Biomin also has a focus on waste management and recycling, considering that South Africa have 108m tons of waste per annum (Greyling, 2017). Communities and markets are becoming more aware of health benefits and identify a direct link between food and health. There is also a requirement on Biomin to adapt as customer preferences and demographics change for sustainability. Biomin is aiming to be carbon neutral by 2024 at all their sites of operation and is currently using carbon dioxide to aid in their manufacturing process.

Ecological environment

Much more sustainable activities are being applied by Biomin in the research, production and marketing of poultry products which include water supply for both broilers and layers where Biomin has put into application management techniques and conditions adjustment strategies to be able to optimize performances. Biomin is not just using the water available but put into use organic acids to improve the quality of the water supplied to poultry by lowering bacterial count (Ibeagha-Awemu et al., 2019). These techniques of improving the water quality have realized the quality of poultry life which has boosted the Biomin market as the company conducts education to producers regarding the poultry and the ecosystem as well as provide acidification products.

There has been an increased demand for eggs that are produced by layers in a welfare-friendly environment. Many poultry industries have swiftly switched their cage systems to cage-free layer rearing to suit within the market. In this, Biomin was not left behind since it came up with various new ways of keeping and managing the health and nutrition strategies that are to be adopted by birds' keepers (Botha, 2019). Extreme atmospheric temperatures are not good for poultry performance and Biomin has been involved in active researches and has come up with various ways of dealing with the extreme weather conditions to boost the poultry performances.

2.1.7. Legal environment

Biomin is adhering to all legislation prescribed in the various countries where they conduct business. Furthermore, other operation regulations in terms with all legal requirements of the South African government are adhered to.

They are a member of AFMA and Biomin is planning to cooperate in the establishment of an African regulatory body (SAFMA – Southern African Feed Manufacturing Association) This will be a watchdog for all SADEC countries.

The National Development Plan – a plan within a plan to grow (and participate globally)

Many factors play a role in a country to grow and stimulate its economy. However, to stay relevant you must play the field in the international arena. South Africa however, needs a plan within the bigger plan to become a relevant competitor. They want to make use of the benefits of a global economy but also need to create jobs, build a sustainable and strong economy, fight poverty, and correct injustices of the past. The development of the economy in SA must not only be done internally but also externally.

Globalisation is the integration of business activities across geographical and organisational borders. This offers the freedom to design, buy, distribute, produce, and offer products to the maximum benefit of the business without the constraints of location and geography. (Kirkbride et al., 2001:14).

Sarokin (2019) discusses six forces that he believes will affect business in a rapidly changing world on the global stage but most of these are also challenged in the NDP

• National and International policies (also trade-wars)

• Social and environmental issues (poverty, inequality, poor health system, education, climate change, etc.)

• Effect of government rules

• The rapid pace of technology (and the lack of access for all to technology)

Some of these forces have been neglected and contributed to the exclusion of South Africa to be a worthy competitor. South Africa, however, realises that the political landscape and disabling, instead of enabling policy, as well as a past exclusive economy, must clean up their house to become a truly global player. Therefore, the National Development Plan (NDP) was announced in 2010 and published in 2011.

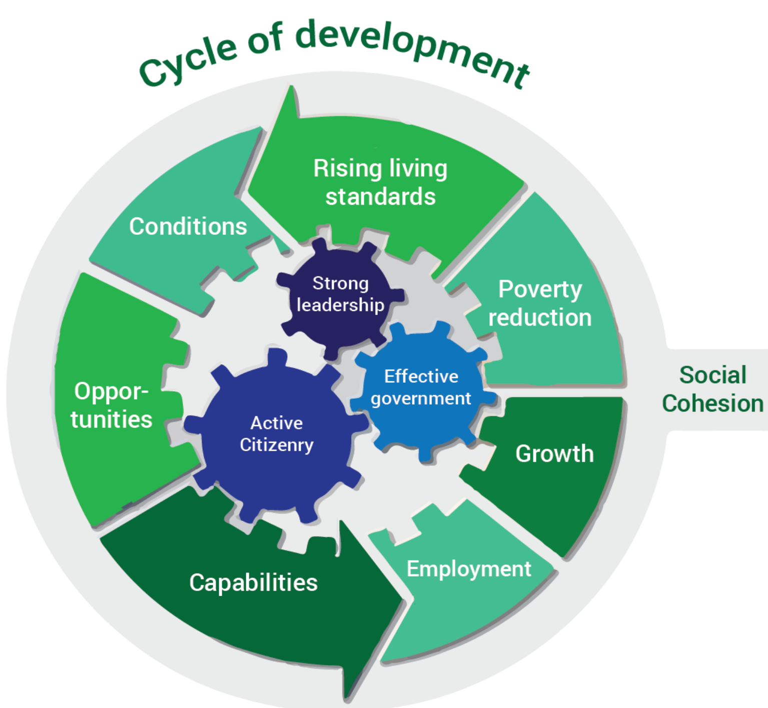


Figure 11: Cycle of development as per the vision of the National Development Plan

The NDP is like a roadmap for South Africa – a vision of what South Africa should look like in 2030. This vision was a plan and now, in 2020, a policy in its implementation phase. The NDP has identified nine primary challenges to find solutions to make the 2030 vision a reality:

1. Jobs for more people
2. Better quality education
3. Better located infrastructure
4. Spatial divides
5. The economy is not sustainable
6. Poor public health services
7. Poor quality public services or equal access for all
8. High levels of corruption
9. Divide amongst people

Ungerer, et al (2019) argue that businesses can help with the successful implementation of the NDP. They motivate businesses to take the lead in bringing the changes in the business environment they would like to see. He gives these broad options for businesses to consider:

1. Develop your business, generate more income
2. Find more customers – locally and internationally
3. Develop new products and services – especially products/services that can be used in under-developed countries
4. Work with stakeholders and find solutions.

Biomin is already a global corporate citizen, adhering to strict European Union trade and industry rules. Therefore, this company has a lot to offer in the developing South African market. Their foreign investment (in Euros) not only boosts the SA economy but also create jobs and brings much-needed technology to the Agricultural sector.

Agriculture is not only a contributor to the GDP but also creates jobs for people on all levels of education. Employment in agriculture (% of total employment) in South Africa was reported at 5.088 % in 2019, according to the (World Bank, 2020).

The need for sustainable and safe meat products is evident. The shift to the consumption of poultry needs mentioning. According to GrainSA (2015), Per capita, beef consumption declined from its highest level of 24 kg per person per year during the 1980s to the current level of around 16 kg per person per year. The consumption of poultry, on the other hand, grew from 6 kg per person per year to the current level of 36 kg per person per year, of which 25% was imported in 2012/2013. Biomin has a large role to play in the safety of meat and animal products and assists producers to farm economically and viable while adhering to safety.

2.2. Porter's Five Forces

Figure 12: Porter's five forces

Introduced more than thirty years ago by Professor Michael Porter of the Harvard Business School, five forces analysis has long been and remains perhaps the most popular analytical tool in the business world.

Limitation of Porter's Theory:

The five forces analysis is useful, but it has some limitations too. The description of five forces analysis provided by its creator, Michael Porter, seems to assume that competition is a zero-sum game, meaning that the amount of profit potential in an industry is fixed. One implication is that if a firm is to make more profit, it must take that profit from a rival, a supplier, or a buyer. In some settings, however, collaboration can create a larger pool of profit that benefits everyone involved in the collaboration. In general, collaboration is a possibility that five forces analysis tends to downplay. The relationships among the rivals the industry, for example, are depicted as adversarial. These relationships are sometimes adversarial and sometimes collaborative. General Motors and Toyota compete fiercely all around the world, for example, but they also have worked together in joint ventures. Similarly, five forces analysis tends to portray a firm's relationships with its suppliers and buyers as adversarial, but many firms find ways to collaborate with these parties for mutual benefit. Indeed, concepts such as just-in-time inventory systems depend heavily on a firm working as a partner with its suppliers and buyers.

Porter's 5 Forces for Biomin:	
Rivalry amongst existing competitors	**Rivalry amongst competitors is high for Biomin** - Biomin through market leadership and patents dominate the feed additives market. Also, by employing state of the art technology, R and D and have international partnerships. The number of competitors especially at the bottom end of the market is much higher and for Biomin to penetrate that market could mean revenue dilution on their high-end price points. There are big quality differences is encouraged by Biomin's patents and relationships with universities, through Research and Development which contributes to their competitive edge. Other factors to consider is Brand Loyalty, the rate at which the industry grows, switching costs and the barriers to exit.
Bargaining Power of Suppliers	**Bargaining Power of Suppliers is low** because business-critical development and product supplies are managed in house. Quality standards are aligned with ISO requirements through managed partnerships and Research and Development is managed through Biomins own value chain. There is not a huge supplier market, because it is very specialist and Biomins differentiator is their Unique Selling Point (USP) – Mycofix, probiotics and phytogenics.
Buyers Power	**Bargaining Power of Buyers is moderate**, because there is only a small number of Feed Millers, although they supply to a much wider customer base. The size of their orders could propose a risk, but managed relations and the quality product on offer from Biomin, balance this. Biomin's Patents and quality assurance standards also create a competitive advantage to this force of Buyer Power.

	Customers can differentiate Biomin's products from competitors and because they serve a niche market, customers are not very price sensitive. There are other products out in the market, but the quality is not at the same level and this limits the buyer's ability to substitute. Buyers have information limitation and the onus is upon providers to ensure customer education, which builds customer loyalty and contribute to the switching cost.
Threat of Substitute	**The threat of substitute products in the short to medium term is low**, but the impact of the 4th industrial revolution and treaties between countries and continents should always be monitored to manage long-term impacts. There is a limited number of substitute products (same quality) out in the market and again this gives Biomin the competitive advantage. The current economic climate might have an impact on buyer propensity to substitute and relationships are managed mainly through third parties, like feed millers. Biomin's price positioning is focused on a niche market and the customer that is prepared to spend a little more. therefore, there is a high level of perception around product differentiation, with Biomin, deliberately positioning them for a higher value customer segment.
Threat of new entrants	**The threat of new entrants is low**, due to the high cost to enter this market, high product development costs and the established market that Biomin is servicing at the already. Biomins history and associations, like being part of the ERBER group also creates brand loyalty and is associated with quality products, thus creating brand loyalty. Capital required to start up a plant and setting up of laboratories is extremely high, plus the expense on Human Capital Management. Government regulations and policy changes also decrease the risk of new entrants into the market. Feed millers already have established relations with Biomin and access to these distribution channels is not easy.

Table 4: Porters 5 Forces

The Biomin Company is a worldwide reputed Animal health and nutrition company in Austria. The company is noted for its production of the feed additives as well as premixes for the livestock animals that includes poultry, pigs, dairy, beef cattle as well as aquaculture.

2.3. Competitor Analysis

The data relating to competitor analysis and the external environment was obtained by Biomin through a third party named "The Customer View". The purpose of this study was to determine the brand equity and image of and customer satisfaction with Biomin and its main competitors in the individual countries. And to identify areas for improving the Biomin performance regarding their products, services, company communication and representation to achieve superiority in performance for Biomin vs their main competitors. According to Ungerer et al. (2016:117) understanding the competitive position and possible moves of competitors empower an organisation to get ready and be proactive, to improve, and change key points of interest. Having an informed view regarding the competitor's scene helps an organisation to create prescience about their own strategic choices and decisions.

The table below illustrates how Biomin performed against the main competitors in the animal feed additive industry on six key success factors.

Key success factors	Biomin	Alltech	Kemin
Product range	81%	77%	72%
Constant quality	69%	77%	64%
Consultancy	58%	72%	64%
Scientific research	78%	62%	69%
Trustworthy	83%	62%	62%
Sustainability	58%	49%	69%
Total:	71%	66.5%	66.5%

Table 5: Competitor analysis

It is evident from table 5 that Biomin scored the highest of the three companies if all 6 factors are accounted for. Biomin's strengths are their great product range, scientific research done globally and the trustworthiness that this conveys to its customers.

For further understanding of the interpretation in competitor analysis, the methodology will be explained on how the data was obtained.

Data collection method:	Quantitative study: the interviews were conducted as telephone interviews (CATI).
Target Group:	The following sources were used to recruit the participants in this project:
	1.) An address list of manufacturers of animal nutrition products feed additives and pre-mixes provided by Biomin which included ca. 220 Biomin customers and 70 of Biomin non-customers.
	2.) Local directories of manufacturers of animal nutrition products, feed additives and pre-mixes for recruitment of additional BIOMIN non-customers.
	The interviews were conducted with company owners/ associates who are in charge of purchasing animal feed products, feed additives or pre-mixes or who have an influence on the purchasing decision of these products.
Sample Size:	n=80, with n=47 BIOMIN customers and n=33 non-customers
Questionnaire:	The following subjects were covered in the interview:
	<u>Brand awareness</u> (top-of-mind, unprompted, prompted).
	<u>Suppliers</u> from which animal nutrition products/ feed additives were bought.
	<u>Statements regarding brand equity, image and performance</u> (per respondent for Biomin and for one competitor – Alltech or Kemin)
	<u>Overall satisfaction and willingness to recommend</u> (per respondent for Biomin and one competitor – Alltech or Kemin).
Fieldwork:	The interviews were carried out in February/ March 2020

Table 6: List of data collected

2.3.1. Brand Equity – BIOMIN vs Competitors

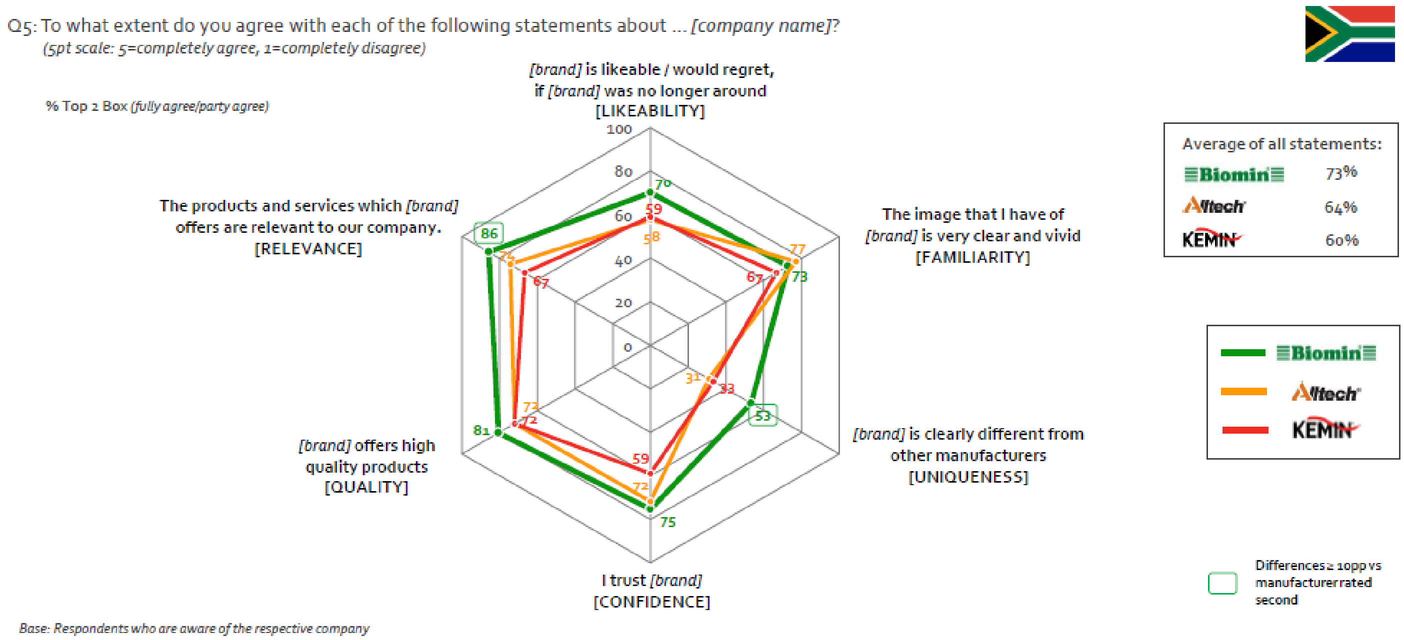


Figure 13: Brand Equity

BIOMIN performs stronger than Alltech and Kemin in terms of likeability, uniqueness, quality and relevance. In terms of familiarity and confidence, Biomin and Alltech perform stronger than Kemin.

2.3.2. Brand Awareness and Purchase Penetration

- <u>Brand awareness</u>: Highest for Biomin (unprompted: 35%/ prompted: 96%), Alltech (26%/ 89%) and Kemin (15%/ 83%). For Cargill, Vitam and Trouw Nutrition prompted brand awareness is between 70% and 80%.
- <u>Purchase penetration:</u> Also, the highest for Biomin (59%), Alltech (54%) and Kemin (48%). Purchase penetration for all other manufacturers does not exceed 30%.

2.3.3. Brand Equity and Image

- <u>Brand equity:</u> Biomin performs stronger than Alltech and Kemin which is mainly driven by more positive rating for Biomin regarding likeability, uniqueness, quality and relevance.
- <u>Product-related aspects:</u> Biomin is best rated on most dimensions, especially on product quality (certification, quality ingredients), the naturalness of

ingredients and productivity increase. Alltech is rated slightly higher than Biomin concerning constant product quality and providing sufficient consultancy regarding product application.

- Services and company representation: There are overall not much difference perceived between Biomin, Alltech and Kemin. Biomin stands out positively regarding its representation in journals/ specialized magazines, but rep visit frequency is perceived as not frequent enough compared to Alltech and Kemin.
- Company image: Biomin is seen as the category leader with a clear business focus (scientific research, sustainability) and the most positive brand personality (approachable, trustworthy/ reliable, modern) of all manufacturers. Alltech as a big, international company that offers attractive conditions.

2.3.4. Customer Satisfaction

- Overall satisfaction/ willingness to recommend: Satisfaction is higher for Biomin and Alltech (both 68%) than for Kemin (59%). The share of those who are extremely satisfied highest for Biomin (32%). Net promoter score is highest for BIOMIN (+57), followed by Alltech (+36) and Kemin (+18).
- Recommendation drivers: Products that help to increase productivity are the most important driver. Constant product quality, a well-performing company rep in conjunction with a high level of service (approachable, trustworthy, reliable) are other important drivers. For these drivers, Biomin performs best regarding productivity increase and service, but Alltech performs better regarding constant product quality.

2.3.5. Strategic group map

According to Tompson (2017:93), a strategic group map is used by an organisation to reveal which organisations are close competitors and where these organisations are situated in the competitive landscape. New product innovation and product range were used on the “X” and “Y” axis to plot the competitive landscape of the different organisations. The size of the indicated company represents its market share in the current animal feed additive market of 2020. The three main competitors in South Africa are Biomin, Alltech and Kemin.

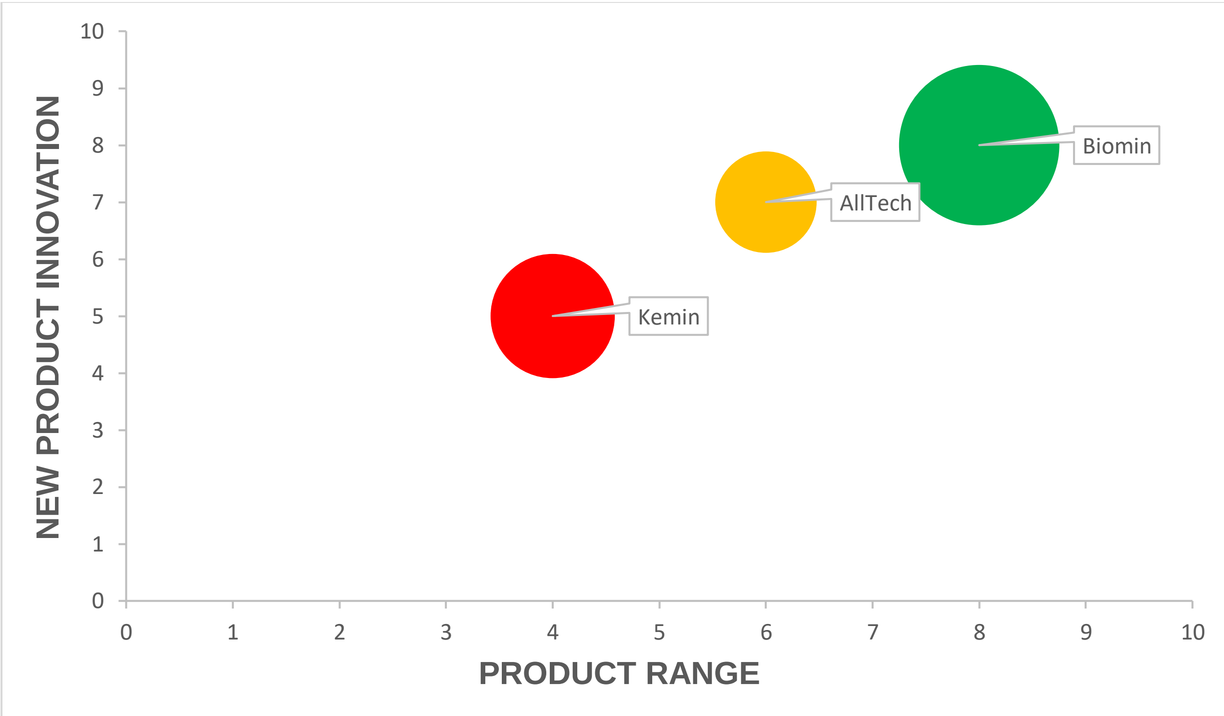


Figure 14: Strategic group map

Strategic position

An organisations strategic position views the relative position within its industry, considering the strategic choices around value creation. The aim is to achieve superior performance within the industry, through either differentiation or low costing to create a competitive advantage (The Institute for strategy and competitiveness).

The underlying principles for strategic positioning are:

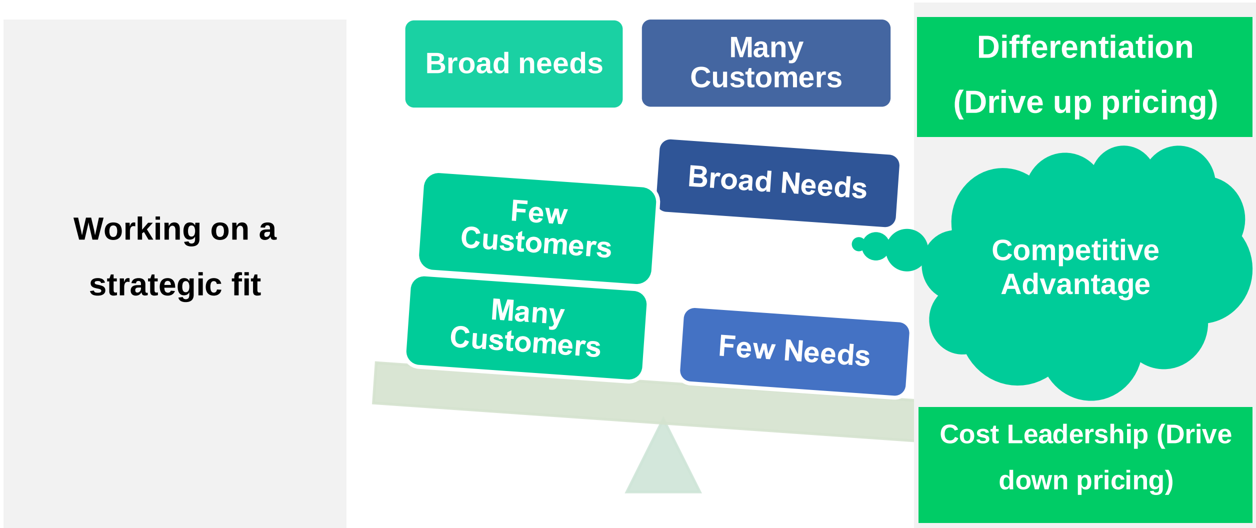


Figure 15: strategic position

Biomin' strategic position identifies the competitive advantage it has through a strategic group map (superior product range and biggest market share). Further competitive advantage for Biomin is created through the patented product range, ISO certification and international accreditation. Due to the specialist nature of the products and the service delivery, through Biomin's research and development support, their field technicians create a competitive edge. Biomin drives a differentiation strategy, by charging a premium price (premium product) and focusing on the segment that is prepared to pay a higher price.

From the strategic group map, Biomin is leading with new and innovative products entering the market and has the greatest range of product to offer the market, with the biggest market share among the three organisations.

2.4. Global Risk Analysis:

The King Report on corporate governance defines risk as an uncertain future event that could influence organisational goals. It urges organisations to mitigate risk exposure, due to the identified risks, through responsible and identified strategies. Therefore, analysing and identifying appropriate risks and taking the necessary steps to manage and or mitigate risks. Senior managers incentives should be linked to organisational risk management to minimise or avoid, inappropriate risk-taking, and this should be considered for the entire life cycle of the organisation (Lazenby, 2016:68).

Risk analysis would therefore mean; to employ techniques to minimise and prevent actual or potential loss to an organisation through controls, financing, assurance, and insurance measures (Lazenby, 2016:68). This is an ongoing process and risk, or potential loss should be identified, evaluated, and managed continuously, the ideal is through the appointment of a dedicated risk manager/committee. Risk cannot be removed from the organisation's strategic objectives and is a corporate governance imperative. Risk management in the organisation is everyone's responsibility and a culture of risk identification and risk handling should be fostered (Lazenby, 2016:69).

The risk management process (applied steps in risk management):

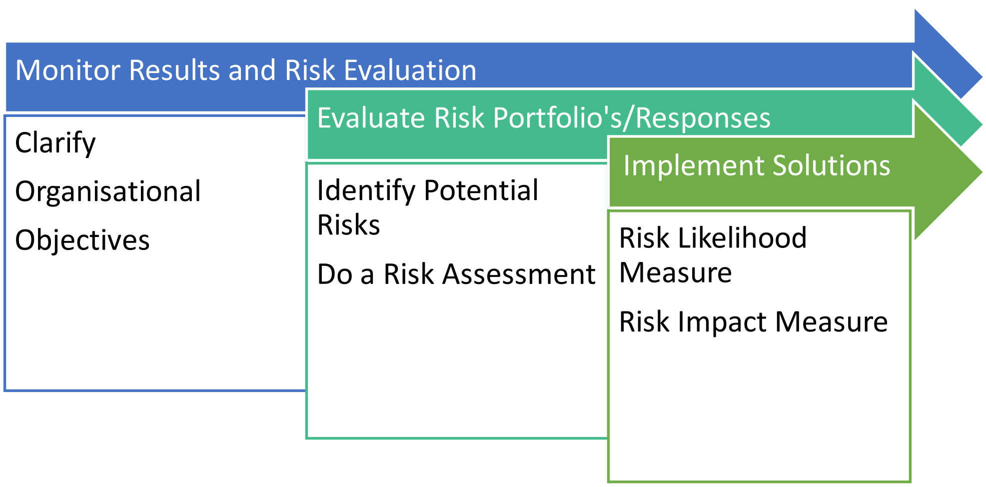


Figure 16: risk management process (Lazenby, 2016:70)

Global Risk Analysis should be focused on the sustainability of the following factors:

Population growth and consumption rates:

- The global human population is expected to increase from 7.7 billion 2019 to 8.5 billion 2030 and a further increase of 1.2 billion by 2050 (United Nations, 2019).

Climate change impact on food supplies:

- Climate variability and sea-level rise compound the challenges for achieving sustainable development goals (United Nations, 2019).
- Mineral resource depletion

Loss of biodiversity:

- About 50% species are forecast to lose their suitability to climate conditions by 2100 (The Conversation, 2020).
- Destruction of natural vegetation and environmental amenities (Lazenby, 2016:72).

Risk management should always be concerned with developing sustainability and meeting the needs of both current and future generations. Best practices can be pursued through an ethical climate and approach.

Poverty and maldistribution of wealth:

The world economic forums 2020 global risk report highlights a widening fractured economy, during challenges like cyber threats, climate change and poor political conditions (World Economic Forum, 2020). This on the backdrop of the African swine fever (ASF) outbreak in 2019, which resulted in a decline in feed production, regionally and globally. Despite the impact of ASF, we see broiler feed increased by 10 million metric tons in Africa and Asia Pacific, with a growth of 6% respectively in 2018/19 (Alltech's Global Feed Survey, 2020:4).

The report indicated that this growth pattern is expected to continue due to an increase in the need for protein in ASF affected countries. Other risks involve regulatory challenges, like the request by the New Zealand government, setting lowered emission targets in the dairy industry. The aquaculture feed grew 4% year on year in 2019, with an additional 1.5 million metric tons and pet feed grew 4% globally, no region saw a decline in pet food production (Alltech's Global Feed Survey, 2020:5).

The one health concept that focuses on integrated food safety, from farm to table, introduced risks assessment methodologies to mitigate risk all round. The risk analysis aims to view safety considering both animal and human consumption, free of toxic and undesirable substances, considering sources like prions, dioxins, or heavy metals, to name a few (Sharma and Sharma 2017:1).

Sources of animal feed contamination:

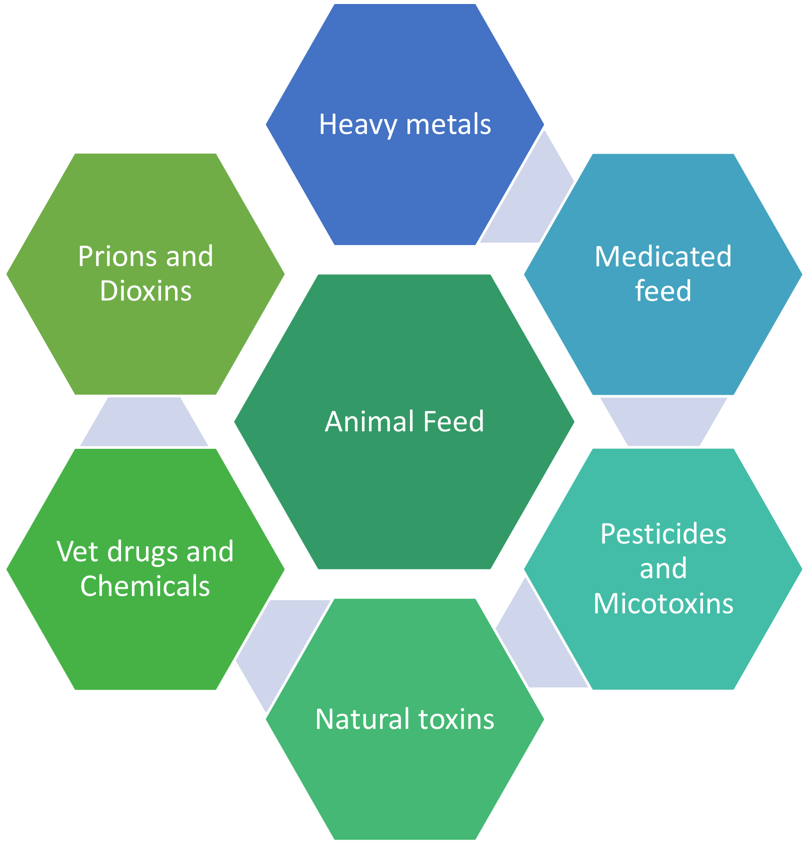


Figure 17: Sources of animal feed contamination

Biomin's risk indicator for farm animals for the South African sub-region: (Risk level)

Low Medium High

Breakdown	Poultry	Pigs	Ruminants
Alfa			
Zen			
Don			
Fum			
OTA			

Figure 18: Biomin Occurrence and risk level indicator, Q2 2019 – Q1 2020

CHAPTER 3 INTERNAL ENVIRONMENTAL ANALYSIS

3.1. Introduction :

In a world full of everything synthetic and imitated, Biomin brings everything natural. They changed the landscape of animal feed for the better. Many claim to have a copy of their winning recipe but up to date, nobody could come up with the 100% natural solution that makes feed truly natural and thus make it safer for human consumption.

Feed additives include feeding attractants, immune-stimulants, prebiotics, probiotics, acidifiers, essential oils, or other inclusions. These additives are not legally necessary but enhance the ingestion of feeds. It has an impact on limiting the use of antibiotics. This feed additives market was valued at $19,642 million in 2017, and estimated to reach $31,387 million by 2025, registering a compound annual growth rate (CAGR) of 6.0% from in the eight-year period until 2025. The global animal feed additives market is expecting growth for this period, owing to a surge in consumption of meat products, an increase in concerns over meat quality, and a rise in safety concerns. The outbreak of disease under livestock and poultry are two major concerns as well. Feed additives form an important part of animal nutrition, which improve the feed quality, yield, and quality of food from animal origin, and animal health (Allied Market Research, 2020).

Currently, the global industrialization of meat products boosts market growth and the demand for meat and meat-based products are expected to double by 2030 in developing countries. Price increases for raw materials i.e. maize, wheat, barley, others, including legal and regulatory guidelines for feed additives influence market growth. In short – the world needs more food, faster, healthier, and safe enough for people to eat.

Biomin, a leading company focusing on health in animal nutrition, develops and produces feed additives, premixes, and services to improve animal health and performance, in an economically viable way. Leveraging on the latest technologies and extensive RandD programs, Biomin offers sustainable quality products which include solutions for mycotoxin risk management, a ground-breaking natural growth-promoting concept as well as other specific solutions which address dietary requirements for swine, poultry, dairy, and aquaculture. Biomin has a distribution footprint in over 140 countries including South Africa, with their Head Office in Klerksdorp (North West).

3.2. Background and History

3.2.1. Biomin History and Timeline

- ***1983:*** Erich Erber opened Biomin in a small warehouse in Pottenbrunn, Austria with a staff of three, starting with a livestock premix product line containing probiotics. Founder Erich Erber named the product and company based on the idea of combining “biological minerals” and so the brand name Biomin was born.
- ***1985:*** Biomin bought Interpremix, a small premix factory, as its first production facility. The acquired firm also made a product called Antitox Plus, the first product available that ‘binds’ mycotoxins through a process known as adsorption.
- ***1988:*** Biomin signed a research agreement with the University of Veterinary Medicine Vienna, Austria, and Dr.Josef Leibetseder further improved the efficacy of Antitox Plus to a wider range of mycotoxins. Only several years later the second generation of the mycotoxin deactivation product was launched under the brand name Mycofix.
- ***1994:*** The Biomin brand name was separated from the Interpremix product line. Erber AG became the holding company of Biomin.
- ***2012:*** Biomin finalised the acquisition of Microplus, a Germany-based feed additive producer, and rolled out Digestarom®, a phytogenic feed additive.
- ***2013:*** Biomin receives EU authorization for its multi-species probiotic, PoultryStar·
- ***2015:*** Global Product introduction of Mycofix 5.0.
- ***2016:*** Product introduction of Digestarom® DC – TheFeedConverter.

- ***2017:*** Opening of first ERBER Group North American hub (ROMER LABS and BIOMIN), Kansas City. Grand Opening of the new Biomin production site in Wuxi, China.

3.2.2. Vision, Mission and Values

Thompson et al (2017:36) explain that a strategic vision should be in writing and should explain the underlying principle and direction to all employees and stakeholders. Biomin's **vision** is:

We care for healthy animal nutrition - Naturally ahead.

"The mission statement describes the organisations current business and purpose (Thompson et al., 2017:37). It is an enduring statement of purpose that distinguishes a company or business from others in the same business environment or type (Fahy and Jobber, 2015:12). It describes the organisation's product and or service, the needs it aims to satisfy, the customer groups or markets, its approach to pleasing customers and the identity of the organisation (Thompson et al., 2017:38). The Biomin **mission** states:

We harness the power of science to support animal health and performance. By applying state-of-the-art and proprietary technology we deliver natural, sustainable, and profitable solutions to the feed and livestock industry. Naturally Ahead.

Whilst the vision statement indicates the strategic direction of the organisation, the mission statement indicates what needs to be done during this voyage, and the values 65 of the organisation explain how things will be done daily (Lazenby, 2016:38).

The company values establish behavioural beliefs and norms for employees. Biomin's values are linked to the vision and mission and equal the triple **bottom line** of accountable and sustainable business run by good corporate citizens:

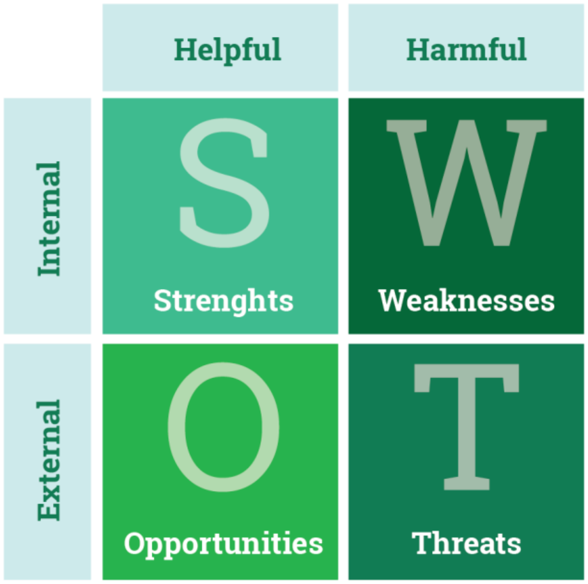
We are Pioneers, Partners and Performers. We are committed to our customers, performance-oriented innovation, a corporate culture that nurtures and recognizes talent, and respect for both people and the environment.

3.2.3. Vision and Mission analysis of Biomin according to (Bresciani, 2018).

Area	Mission Statement	Vision Statement
Time	1-5 years	Future - longer
Operates in…	Present	To ensure – present and future
Metaphor	The way to get there (compass)	The destination (North star) – where they want to be.
Provides…	To develop innovative and sustainable solutions to ensure – provides the destination – what Biomin wants to achieve.	Direction – ahead (moving forward)
Verb	Develop (verb)	We care… (verb)
What, where, how, when	How – By development Who – For the animals and customers? How – Innovative What – sustainable solutions	How – naturally Where- Forward Who – We? What – healthy nutrition
Relates to?	Head and heart	Head and heart
Useful why?	Targets the customer in the mission as well the animals that will benefit from the product	Targets the customer in the vision
Vision and mission connected?	Definitely – giving the action steps on HOW to move forward	Definitely – giving the action steps on HOW to move forward
Length?	Short enough but with enough information to show HOW	Short and concise
Focus Words	Innovative and Sustainable	Naturally Ahead

Table 7: Vision and Mission analysis

3.3. SWOT Analysis



Executives using SWOT analysis compare internal strengths and weaknesses with external opportunities and threats to generate ideas about how their firm might become more successful. Ideas that allow a firm to leverage its strengths, steer clear of or resolve its weaknesses, capitalize on opportunities, and protect itself against threats are particularly helpful.

Strengths	Opportunities
Quality Assurance (ISO 9001) Research and Development Specialist Staff Proprietary Products Competitive Advantage Brand: Biomin (Mycofix) Part of the EGBER Group International Presence Environmentally Friendly Good cooperative Governance Accredited by the European Union The wide variety of product range Product composition kept secret	Increased Distribution (Africa Expansion) Servicing the end-user Additional Marketing Platforms More affordable products increased product scope Research Results (New Products) Growing demand for protein products Globally Market Penetration in KZN and Eastern Cape Partnering with mineral trace element companies to create a one-stop feed booster

Threats	Weaknesses
Legislation in markets Poor Government Regulation Political instability Policy Changes Economies of scale Substitute Products Technological Advancements Import and Export Excise Duties Virus Outbreaks i.e. impact on Supply Chain lack of public and academic awareness Exchange Rate Impact High Marketing Expenses	Premium Product Pricing Time to gain knowledgeable specialist staff Research and Development (Time to Market - Concept to Market) Rigid Pricing Supplied Marketing Material, not customized for the South African Market. Limited Staffing Servicing a wide area (Specifically Serving Eastern Cape and KZN Markets)

Table 8: SWOT analysis

SWOT *(Strengths, Weaknesses, Opportunities, and Threats)* is a strategic planning technique used by Executives in the preliminary decision-making stage to evaluate internal strengths and weaknesses with external opportunities and threats to generate questions and answers on how to grow their firm or product and become more successful. The Strengths and Opportunities are factors that will help with achieving your objectives, and the Weakness and Threats are harmful when trying to achieve your goals. Strengths and Weaknesses are internal factors that the organisation can change or control like your location, team, training, etc., Opportunities and Threats are external factors like competitors, shopping trends, the economy etc, that the organisation can only manage, take advantage of, or monitor to try to medicate the risk.

This strategy is essential when looking at business strategic goals and growth opportunities. It allows a firm to leverage its strengths, avoid/or resolve its weaknesses, capitalise on opportunities, and protect itself against threats that may affect business. Four of the most common factors listed in most SWOT analysis is Social, Economic, Political and Environmental factors. This is usually either a threat or an opportunity depending on how they affect the business. During 2020, COVID-19-19 was one such a factor that every company had to factor into their strategic plan to ensure they stay competitive and profitable.

3.4. Technology

Technology can be deemed a blessing or a curse in many instances – as computer errors and a breach of security, hacking, etc. can compromise your daily operations and bring your business to an abrupt halt. At Biomin different types of technology are used for different segments of the business. For science and predictions, for the day-to-day business management and technology designed for their clients.

Biomin Technology
Scientific Technology for product development and competitive advantage and credible predictions: Mycotoxin Prediction Tool • The first global prediction of mycotoxin risk • For the coming harvest • Collects data from 60 000 weather stations Digital tools for animal gut health assessments This can detect gut problems early, which can be treated fast and effective Metagenomic Sequencing (see figure below). Latest technology in their Romer laboratories internationally
Day to day business systems to keep the business afloat • HR Systems online • Data storage online • Stock control • Logistics • Payroll • Debtors
Technology for their clients to ensure added value to their agri-business and farm in a sustainable, and profitable manner. Digitalization across all segments (poultry, pork and beef)

Health- and disease control
Lameness • Mastitis etc. for different animal types – also preventative. Gut Health Assessments
Measure Performance:
Milk yield • Weight • Feed intake, etc.
Reproduction and well-being
Comfort • Individual animal monitoring • Feed control • Medication • Sorting • Automation • Feed control • Medication • Egg collection • Performance: • Bodyweight
Digitalisation and automation for sustainable businesses.
Labs producers can use to test their grain/feed

Table 9: Different types of technology

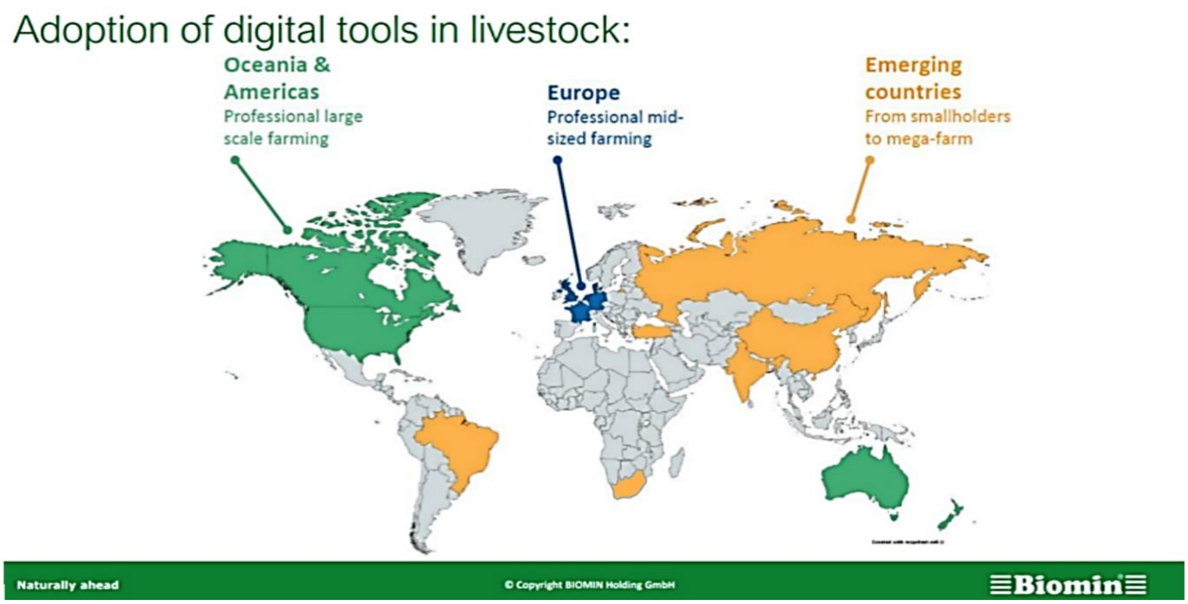


Figure 19: Adoption of digital tools in livestock map (Biomin, 2010)

Metagenomic Sequencing in the palm of your hand

Figure 20: Metagenomic Sequencing

3.5. Sustainability and Risk Management: Biomin's triple bottom line

At Biomin they pride themselves in the fact that they convert risks into opportunities. Therefore, the abuse of antibiotics has serious risks on human health but also animal well-being. Biomin is a part of ERBER Group, which has committed to sustainability by setting a goal to be carbon neutral by 2023.

The offices and plants have their own solar energy, better isolation for internal climate control and technology for using bagasse biofuel for heat and energy production. As a result, more than 90% of the energy demand is covered by renewable energy sources

The headquarters at ERBER Campus, is equipped with an insulated shell, has groundwater heating and cooling, ventilation systems that include heat recovery and photovoltaic energy, is the first building in Austria to achieve platinum class LEED (Leadership in Energy and Environmental Design) certification from the US Green Building Council.

In addition to the implementation and certification of environmental management system ISO 14001, Biomin has carried out a full life cycle analysis (ISO 14040 and ISO 14044) to quantify the environmental impacts associated with the life cycle of all products. BIOMIN became the first feed additive company worldwide to be fully certified under the Life Cycle Assessment of the US Environmental Protection Agency in 2011.

Sustainable solutions for producers

The main contribution of Biomin to sustainability is the application of our solutions in feed, water, and livestock, which results in improved animal health and performance. Greater efficiencies gained through the application of Biomin solutions result in a reduced environmental footprint, improved food safety and food security, reduced antibiotic use, and greater economic benefits.

King 4 Report, key concepts, and triple bottom line:

King IV encourages companies not only to use historic data to formulate strategy but to be forward-thinking and holistic in their approach to business and governance. The following seven points outline some of the biggest concepts in King IV:

1. Risk and opportunity governance is a new concept in King IV and is based on the belief that risks can be seen from different perspectives.

2. There will be a significant focus on stakeholder inclusivity and responsiveness.

3. Technology and information are recognised as the building blocks for a business in King IV.

4. The board is ultimately responsible and accountable for ethical governance.

5. Dispute resolutions do not end at the point of resolution.

6. Auditing committees must consider the audit firm – client relationship, significant management and audit partner rotation and non-audit services rendered to the client – when overseeing auditor independence.

7. Reports from internal audit, external audit and the board are no longer enough, and must now include reports from line managers and specialists.

King IV promises to integrate business in a way that uplifts and empowers organisations and their stakeholders.

From King II it was proposed that organisations move towards a triple bottom line foundation, focusing on the economic, environmental, and social impact that a company had.

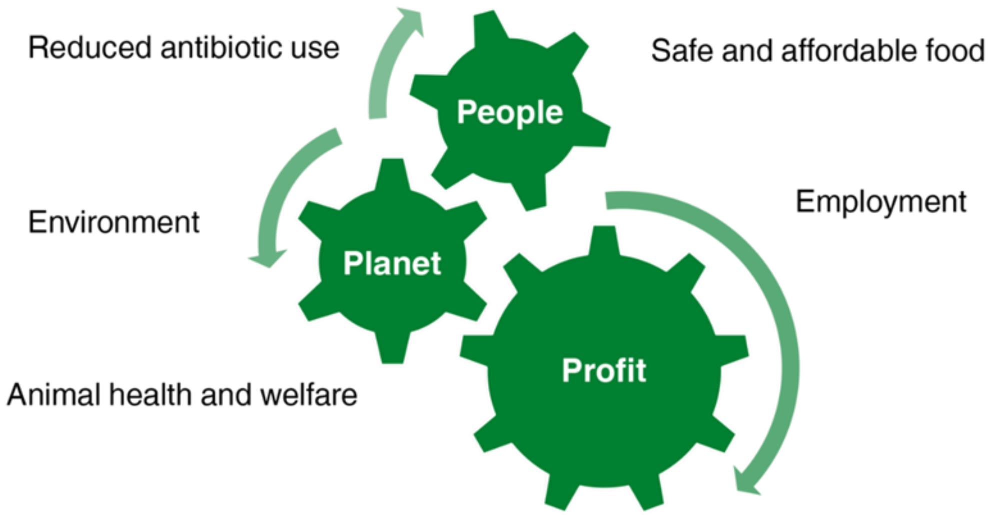


Figure 21: Triple bottom line

King III introduced the concept of the triple bottom line reporting, where profit, planet and people were taken into consideration when reporting on performance. Since the release of the King III, there have been significant global developments in corporate reporting.

3.6. Stakeholder analysis

The stakeholder analysis is used to identify people with an interested in the organisation or project before it begins. By grouping them by levels of participation, interest, and influence in the project, the organisation can determine how best to involve and communicate with each of these stakeholder groups throughout.

What is the purpose of a stakeholder analysis?

1. To help to enlist key organisational players

My enlisting company influencers, executives, or valuable stakeholders early in your project, you can leverage the knowledge and experience of the key players to guide the project to success.

2. Alignment among the goals and plans of all stakeholders

The stakeholder analysis will help to determine who to involve in the project. This will allow you to bring all parties together to conduct meetings to communicate the project's strategic objectives and plans to ensure all parties start the project with the clear understanding of the project scope to boost the possibility of success

3. Helps address conflicts or issues early on

Stakeholder analysis allows you to allow you to identify all the parties with an interest or impact on the project and thus allows you to identify the parties that need to be involved from the beginning. An example would be if a manager of an executive might not see the value of the project due to a lack of information and thus not give cooperation, which may delay the project or affect the project's success

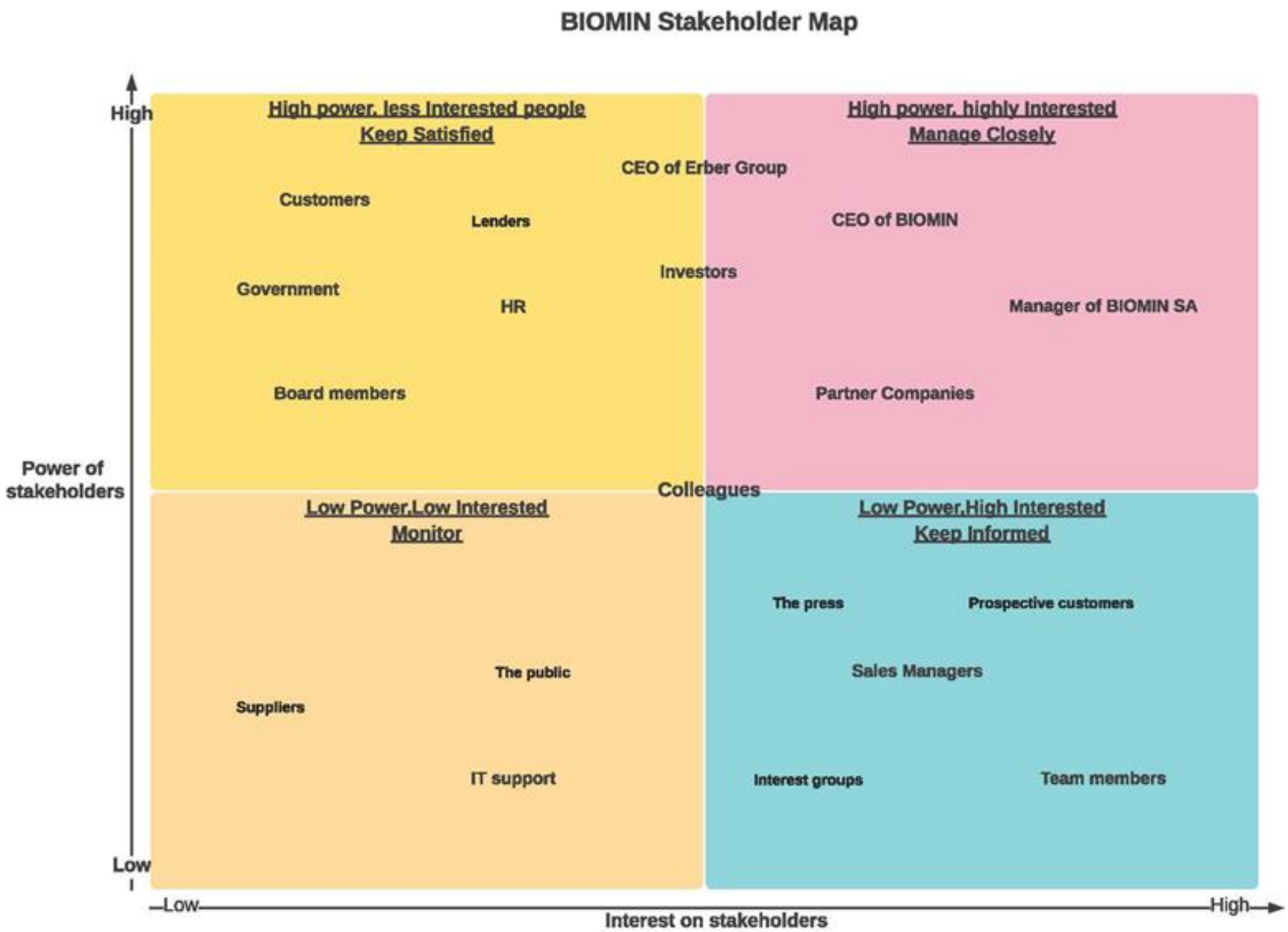


Figure 22: Stakeholder Map

3.7. Biomin Business Model Canvas

8. KEY PARTNERS
- Strategic Alliance: Universities: Network of 200 academics & Research Institutions
- Tyson Foods (USA) – Antibiotic free poultry production
- CRV XSEED - Distribution of silage inoculants
- Mega Farmers
- Feed Millers
- Distributors; VETS; Bio-farm
- Member of - AFMA Association
- Marketing
- Clearing agents (Custom Officials)
- Golden Vision Logistics (Transport)

7. KEY ACTIVITIES
- Problem Solving
- Customer Training &Onsite assistance
- Patents
- Product Sales &
- Distribution – Customs
- Products can be delivered between all three warehouses within 3 days.
- 3-4 times/year Best Practice & Benchmarking

6. KEY RESOURCES
- Physical: Strategic location sites 3 x Warehouses (main warehouse is 1800sqm – 5 x Fleet Vehicles).
- Human: Professional Sales & Support Staff; Specialist Staff
- Financial: Investment into research & development
- HO credit limits
- Intellectual: Mycofix Brand, Patents, Specialist knowledge

2. VALUE PROPOSITIONS
- Healthy animal nutrition
- Innovative & Sustainable solutions – Healthy & safe animal nutrition
- An alternative to antibiotics
- Feeding Solutions
- Gut Performance Management
- Quality Products &
- External Quality Partners
- Quality managed through supply chain
- Customers have access to advice and tangible products
- Convenience
- Biomin goes to the farmer, which is saving the farmer costs
- Free Service Advice
- Only EU Registered Product for managing mycotoxins

4. CUSTOMER RELATIONSHIPS
- Personal Assistant (Service Feed Millers & Farmer)
- Dedicated personal Assistants (sampling POS support)
- CRM – Advertising & Marketing - Social Media communities
- Annual Conferences (P.155)

3. CHANNELS
- Through direct retail distribution, national & international.
- Wholesaler – Indirect Trade
- Auto spec & working on customer specs.
- Marketing through industry specific magazines, farming communities
- 3 x Warehouses (KLD, Cape Town & KZN)

1. CUSTOMER SEGMENTS
- Whom are we creating value for?
- Swine (Pig) Farming
- Poultry
- Ruminant
- Aquaculture
- Pre-Mixers
- Integrators (AFGRI - sell to public, self-produce & multi species.)
- Commercial Farming
- Feed Milling
- Export Market
- Wholesale
- Main focus: Niche Market Models (P.144)

COST STRUCTURE
- Fixed Costs: Overhead Costs, Service Costs, Municipal Costs, Offices, Salaries (25-30% of expenses), and Telephone & Internet.
- Variable Costs: Sales & Marketing, Vehicle Maintenance, Entertainment, Travel Costs (Local & Overseas), Custom Clearing Costs

5. REVENUE STREAMS
- Product Sales

Strategyzer

Business Model Canvas (BMC) by Alexander Osterwalder: Visualize a strategy for the development of a new organization or to analyze an existing business.

3.7.1. Business Model Canvas detailed discussion

Customer segments

These are the groups of people or companies that you are trying to target and sell your product or service to. In BIOMIN's case, they are looking at Commercial Producers, Feed Millers, Export Markets into Africa, and Wholesale to the public.

Segmenting the customers based on similarity needs into 5 product requirements for Swine, Poultry, Ruminant, Aquaculture, Pre-Mixers allows you to better serve their needs, specifically by customizing the solution Biomin offers. There are different customer segments a business model can target namely Mass market, Niche market, Segmented market, Diversified market, or a multi-sided market. With Biomin a multi-side market will be looked at as it combines a Niche market which is focused on specific groups of people with unique needs and traits.

Here the value propositions, distribution channels, and customer relationships should be customised to meet their specific requirements. The second market Biomin participates in a segmented market as well based on slightly different needs, there are be different groups within the main customer segment. Accordingly, they create different value propositions, distribution channels to meet the different needs of these segments

Value Propositions

This is the building block that is at the heart of the business model canvas. And it represents Biomin's unique solution for a problem faced by a customer segment like the farers and Feed Millers that creates value for the customer segment.

A value proposition is unique and is different from that of Biomin's competitors. The products (feed food additives) that Biomin makes is of an extremely high standard which is innovative and disruptive. And being a world leader in this industry and having leading university accreditation this ensures that the products stand out in the market with its leading development in animal supplements. The products proposition is a qualitative type of products where the customer experience and design of the products are especially important to ensure a very well looked after livestock.

Channels

This block is to describe how Biomin will communicate with and reach out to their customers. Channels are the touchpoints that let your customers connect with your company. Channels play a role in raising awareness of Biomin product or services among their customers and delivering their value propositions to them. Channels can also be used to allow customers the avenue to buy products or services and offer post-purchase support through direct retail distribution, national and international and Wholesalers.

The two types of channels that are being utilised are:

- Owned channels: Company website, social media sites, in-house sales
- Partner channels: Marketing through industry-specific magazines, farming communities and warehouses.

Customer Relations

In this section, we will establish the type of relationship Biomin has with their customer segments and how they will interact with them throughout their journey. The types of customer relationships Biomin has:

- **Personal assistance:** Where they interact with the customer in person or by email, through phone call or other means with the Service Feed Millers and Producers
- **Dedicated personal assistance:** you assign a dedicated customer representative to an individual customer through a POS support system as well through an interactive app with live support.
- **Automated services:** this includes automated processes or machinery that helps customers perform services themselves like the Biomin app “Mycofix”

- **Communities:** these include online communities where customers can help each other solve their problems regarding the product or service through social marketing.

The kind of relationship Biomin's customer has with Biomin is through a customer journey map. This helps us identify the different stages Biomin customers go through when interacting with them. And it will help them make sense of how to acquire, retain and grow their customers.

Revenue Streams

Revenues streams are the sources from which a company generates money by selling their product or service to the customers. And in this block, we will describe how Biomin earns revenue from their value propositions. The revenue stream belongs to the following revenue models:

- **Transaction-based revenue** made from customers who make a one-time payment like the sale to the public and one-time issues requires Biomins help.
- **Recurring revenue:** made from ongoing payments for continuing services or post-sale services with the feed millers as they use Biomin product to enhance their products.

Key Resources

This is where we list down which key resources and the main inputs, they need to carry out their key activities to create Biomin's value proposition. There are several types of key resources and they are:

- **Human factor,** like Biomin's Professional Sales and Support staff as well as their specialist in each market segments
- **Financial factor**, as Biomin has a big investment in research and development and their credit line with their Head offices as most of their products are imported.

- **Intellectual factor** their main formulations, Mycofix, of the additives are made at the Head facility and distribute worldwide to ensure that they keep their copyright/patent to their formulations
- **Physical factor** in South Africa they have 3 strategic located warehouses where the main ware is 1800sqm and a fleet of 5 vehicles to assist with operations.

Key Activities

These key activities will focus on fulfilling Biomin's value proposition, reaching customer segments, and maintaining customer relationships, and generating revenue. There are 3 categories of key activities:

- **Problem-solving:** finding new solutions to individual problems faced by customers thru customer training, onsite assistance.
- **Platform/ network:** Creating and maintaining platforms. For example, Mycofix App that provides a reliable operating system to support third-party
- **Distribution: Products are moved from customs warehouses to Biomin warehouse and then shipped between their warehouses within 3 days**
- **Benchmarking:** This is done 3- 4 times a year to ensure that best practices are followed and up-kept.

Key partners

Key partners are the external companies or suppliers that will help Biomin carry out their key activities. These partnerships are forged to reduce risks and acquire resources. Types of partnerships are:

- **Strategic alliance:** a partnership between non-competitors as Biomin's has with Universities and their network of 200 academics and Research Institutions and with transport needs as assisted with Golden Vision Logistics and having a good relationship with customs officials to ensure a speedy service with clearing items.
- **Coopetition:** a strategic partnership between partners
- **Joint ventures:** partners developing new business. This must be looked at to help with lowing imports and encouraging local growth and technology in the local market.

- **Buyer-supplier relationships:** ensure reliable supplies between Mega Producers, Feed Millers, Veterinarians, Bio-farm and Members of AFMA Association.

Costs Structure

Here all the costs associated with operating Boimin's business model would be identified. We will be focusing on evaluating the cost of creating and delivering Biomin's value propositions, evaluating, and creating revenue streams, and maintaining customer relationships.

Biomin is value-driven (focuses on providing maximum value to the customer) and less cost-driven. The main fixed costs Biomin experience are overhead costs like Municipal costs, office administration and salaries that are 25-30% of their total expenditure. The main variable costs they experience is currency fluctuations as well as customs clearing costs, the rest like vehicle maintenance, entertainment and travel cost is not a main variable cost.

3.8. Internal Value Chain

The theory of the Value Chain was also created by Michael Porter, often referred to as the "Father of the Five Forces System". It focused on how to generate more value for the customer and how various organisational practices and processes relating to the importance of customer service. This exercise discusses all the value-creating activities of the company and analyses where the most value is created and recognizes the potential for additional value-added. Customer perception of the value received encourages them to pay a higher premium and the higher the perceived value, the higher the price and organisation can charge. Effective value development results in higher returns. A competitive advantage is achieved when the gain from value creation is greater than the value supply or the overall cost of value creation (Ehlers and Lazenby, 2014:121-122). Value creation is achieved from primary activities (activities that create customer value) and support activities (facilitate or enable primary activities).

Supportive Activities

Biomin' Infrastructure

HO in Austria - 3 x Warehouses (Durban, Cape Town and Klerksdorp/HO) - Outsourced Distribution - Partnership Clearance Agencies - Management Structure (Local and International)

Human Resource Management

HR functions are performed at head office (Appointments - Payroll - Labour Relations) - Local Talent Pool is managed through local office in Klerksdorp once apointed (Regional Training).

Procurement Processes

Electronic Procurement Process - Electronic Stock Management - Automated Ordering (Backward Intergration) and Payment Systems

Technology Utilization

Use Science - Patented Technology - Research and Develpment - Copy Rights - ISO Certification - ERP System

Primary Activities

Inbound Logistics:	**Operations:**	**Outbound Logistics:**	**Marketing and Sales:**	**Services:**
Receiving Stock	Stock from Austria	Outsourced Distribution	Exhibitions	Onsite Support Specialist Analysis,
Warehousing	Distribute to Feed Millers and on sell	Real time Customer Orders	Social Media /Networking	Field Services
Distribution		Specialist Sales Staff	Magazines	Technical Support
			Feed, Millers	Training
			Internet	

3.9. Marketing

Marketing and sales refer to those activities, costs and assets used to create awareness and means through which customers can purchase products and services (Ungerer et al., 2016:171). In April 2020, the Consumer View published the results of brand and market research conducted on behalf of Biomin to track the brand, specifically in South Africa.

When comparing this to Biomin's competitors, the finding was favourable to Biomin who does not have the biggest market share in South Africa. Some of the findings were:

3.9.1. Brand Awareness and Purchase Penetration in South Africa

- Brand awareness: Highest for Biomin (unprompted: 35%/ prompted: 96%), Alltech (26%/ 89%) and Kemin (15%/ 83%). For Cargill, Vitam and Trouw Nutrition prompted brand awareness is between 70% and 80%.
- Purchase penetration: Also, the highest for BIOMIN (59%), Alltech (54%) and Kemin (48%). Purchase penetration for all other manufacturers does not exceed 30%.

3.9.2. Brand Equity and Image in the South African market

- Brand equity: Biomin performs stronger than Alltech and Kemin which is mainly driven by more positive rating for Biomin regarding likeability, uniqueness, quality and relevance.
- Product-related aspects: Biomin is best rated on most dimensions, especially on product quality (certification, quality ingredients), the naturalness of ingredients and productivity increase. Alltech is rated slightly higher than Biomin concerning constant product quality and providing sufficient consultancy regarding product application.
- Services and company representation: There are overall not much difference perceived between Biomin, Alltech and Kemin. Biomin stands out positively regarding its representation in journals/ specialized magazines, but rep visit frequency is perceived as not frequent enough compared to Alltech and Kemin.

- Company image: Biomin is seen as the category leader with a clear business focus (scientific research, sustainability) and the most positive brand personality (approachable, trustworthy/ reliable, modern) of all manufacturers. Alltech as a big, international company that offers attractive conditions.

3.9.3. Customer Satisfaction in SA

- Overall satisfaction/ willingness to recommend: Satisfaction is higher for Biomin and Alltech (both 68%) than for Kemin (59%). The share of those who are extremely satisfied highest for Biomin (32%). Net promoter score is highest for Biomin (+57), followed by Alltech (+36) and Kemin (+18).
- Recommendation drivers: Products that help to increase productivity are the most important driver. Constant product quality, a well-performing company rep in conjunction with a high level of service (approachable, trustworthy, reliable) are other important drivers. For these drivers, Biomin performs best regarding productivity increase and service, but Alltech performs better regarding constant product quality.

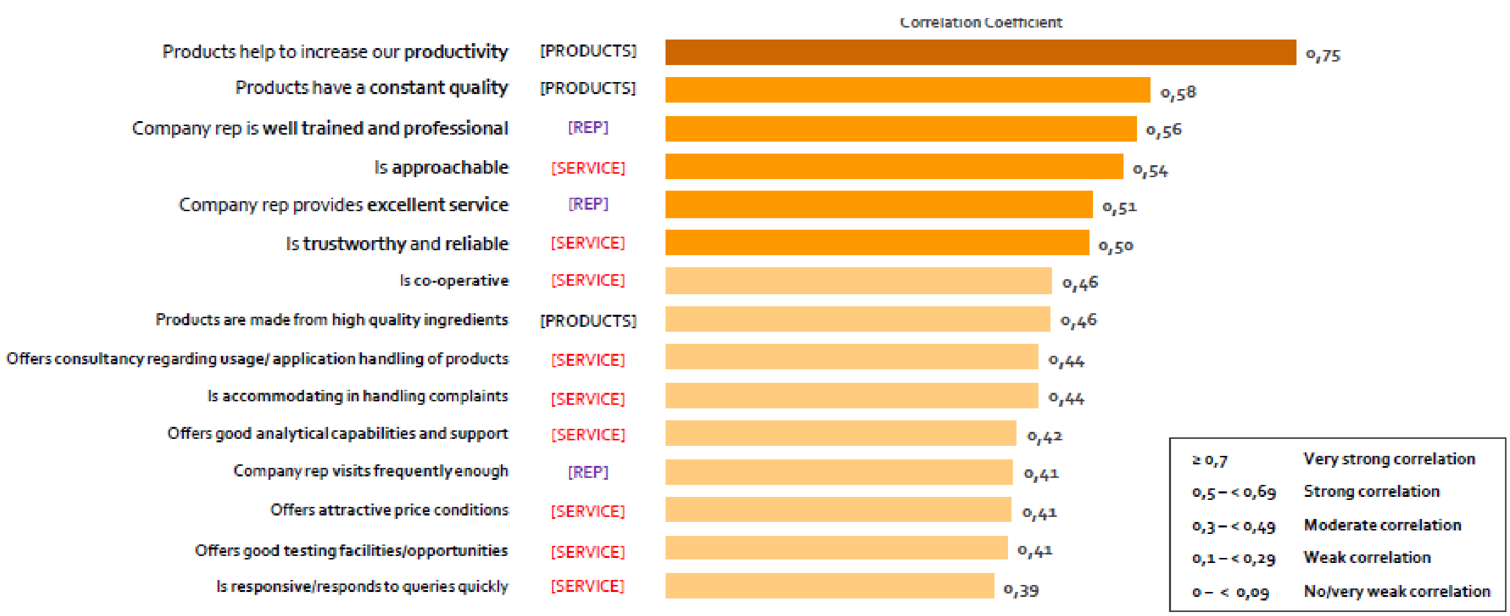


Figure 23: Customer Satisfaction Survey in SA

Direct marketing channels to feed mills/premixes, big/medium-sized farms and to contractual partners

Nutritional specialist in different areas has allocated clients and aim at recruiting new customers. Biomin Head Office in Getzersdorf designs and strategises the marketing plan for all branches across the world. Advertisement designs are done by the head office marketing and design team and distributed to all in the group. In South Africa, the team try to customise the designs to better communicate with the local market. Designs are also translated into Afrikaans to service the large Afrikaans speaking farming community.

Targeted advertisements are placed in specific niche magazines that include Agricultural magazines, corporate magazines. Research and scientific platforms are also used. Different platforms are used to do one on one promotion e.g. at trade shows like the Agri SA, Nampo Harvest Day and other agricultural focused events. Social media is also utilised to reach producers and agricultural role-players (Biomin, 2020).

Figure 24: A Compilation of advertising campaigns by Biomin (Biomin, 2010)

The marketing team monitors browsing habits and hits to generate content and information. The study revealed where their messages get the most traction and how their company and products are best advertised. Promoted.

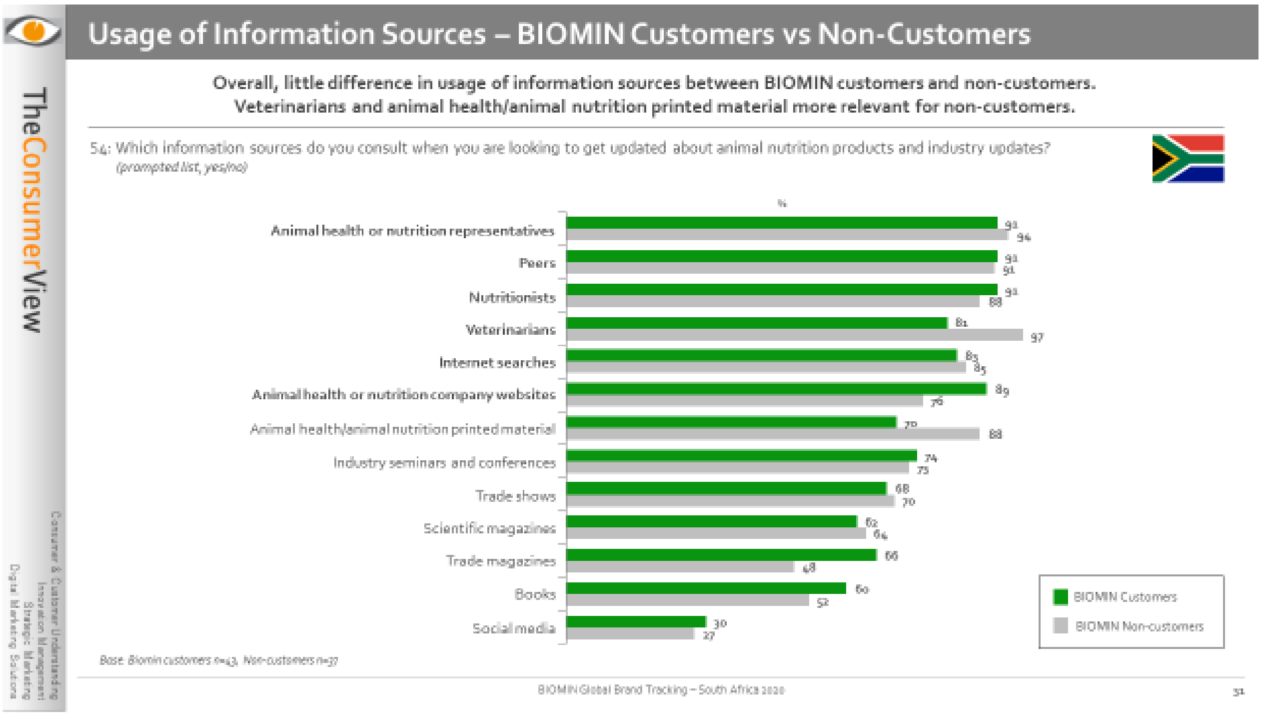


Figure 25: Biomin customers vs Noncustomers

Biomin does not have a dedicated Africa (South African) webpage. Given the information received, clients and non-clients use internet searches (83-85%) for information. Trade shows and industry seminars/conferences should still be attended as it showed more than half of Biomin customers and non-customers visit these events for information.

Word of mouth (peers), company representatives and veterinarians play the biggest role in getting the message/information to clients and potential clients within the SA context.

Therefore, marketing should include better relationship marketing where there is interaction as with peers and company representatives (at Biomin they are referred to as Sales Managers).

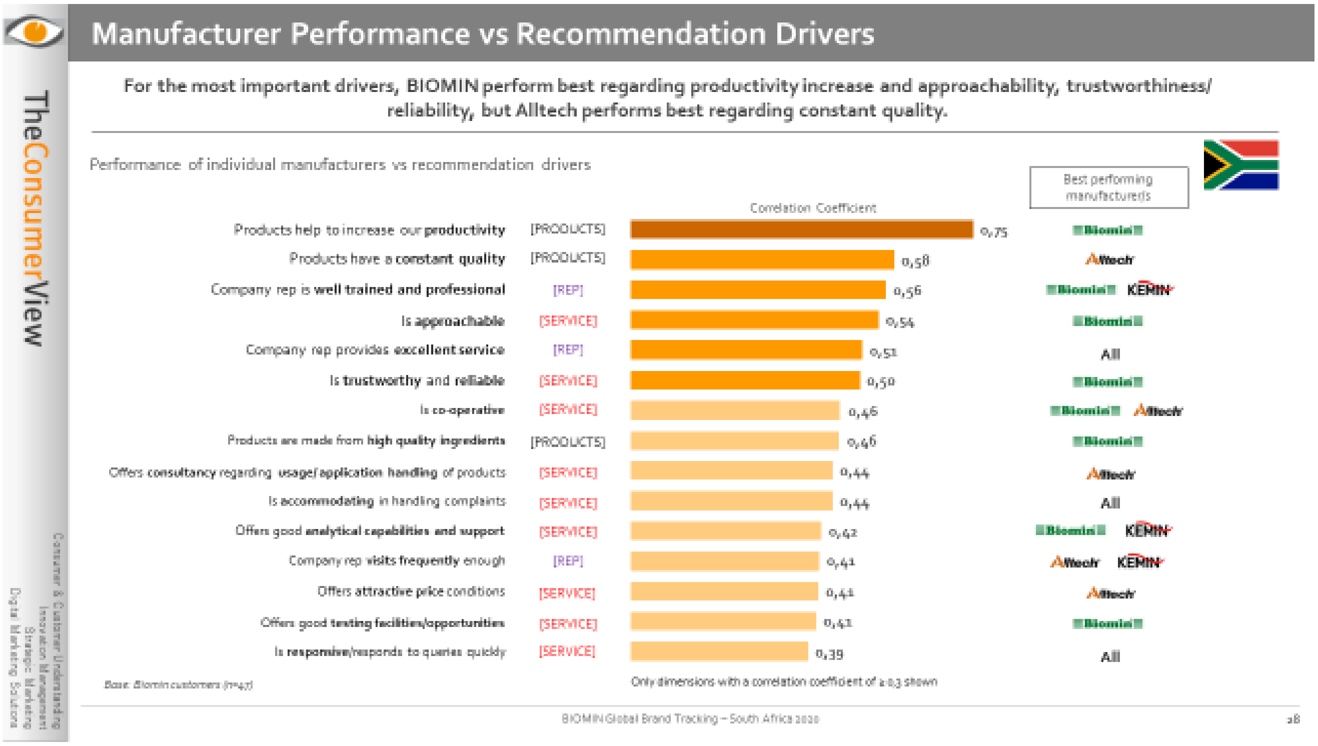


Figure 26: Manufacturer Performance vs Recommendation drivers

This figure shows the Biomin excellence but lack of enough interaction from Sales Managers with clients. From this research, it is clear people are interested in personal contact with a company representative. Here Biomin did not compete well with their industry rivals.

Their top testing facilities are giving them a further competitive advantage and although the Biomin products are perceived as more expensive it is deemed reliable and of high quality. The company representatives are professional and well-trained but not available enough. (They are, however, deemed approachable – which might rather indicate a lack of staff than a lack of service delivery to clients).

Currently, BIOMINs Marketing mix is working because they have most of their products sitting ether in the Star or Cash-Cow phase because of the exceptional research and development the company is doing, this allows them to focus on the continues improvement of their products thus keeping their market share and keeping a good market growth. BIOMAN currently do not have any “DOG” bands and this is due to the innovative approach they must research, by collaborating with universities they stay at eh cutting edge.

3.10. Human resources and people practices

3.10.1. Introduction

Biomin is one of four companies under the multi-national Erber Group and therefore follows many regulations of international standards. Human resource functions relating to the corporate identity of Biomin remain constant throughout the company, but factors like labour laws are taken into the South African context and follow SA regulations. The SABPP (SA Board for People Practices) guidelines are adhered to when dealing with HR practices in the South African context and appointments of new staff need to be approved by HR at headquarters, but the sourcing of potential candidates to work within the SA company is done by Albert van Rensburg, the Regional Director. Talent development is of great importance to Biomin SA as the business strives to develop the skills of employees and use this as a competitive advantage. Aligning objectives with incentives implies that employees are recognized, and their value to the company is not overlooked.

Being an ISO9001 and ISO14001 company means that management gives close attention to production processes, standards, and quality. The health and safety, and environmental requirements for the workplace are strictly adhered to. Biomin does not have a high staff turnover as job security and job satisfaction is of a high priority to the company.

3.10.2. HR department:

Decisions relating to appointments are made by the regional director A. Van Rensburg within the South African division of Biomin. The HR role that Beate Koenig fulfil is dispute and grievances resolution if a problem can is not resolved within the management area of regional director A. Van Rensburg. Koenig also assists with the psychometric tests to evaluate the personality traits of potential employees at Biomin SA. Biomin is making use of “Comply 365 (Pty) Ltd. for BEE consulting and compliance.

Below is the organigram of Biomin SA:

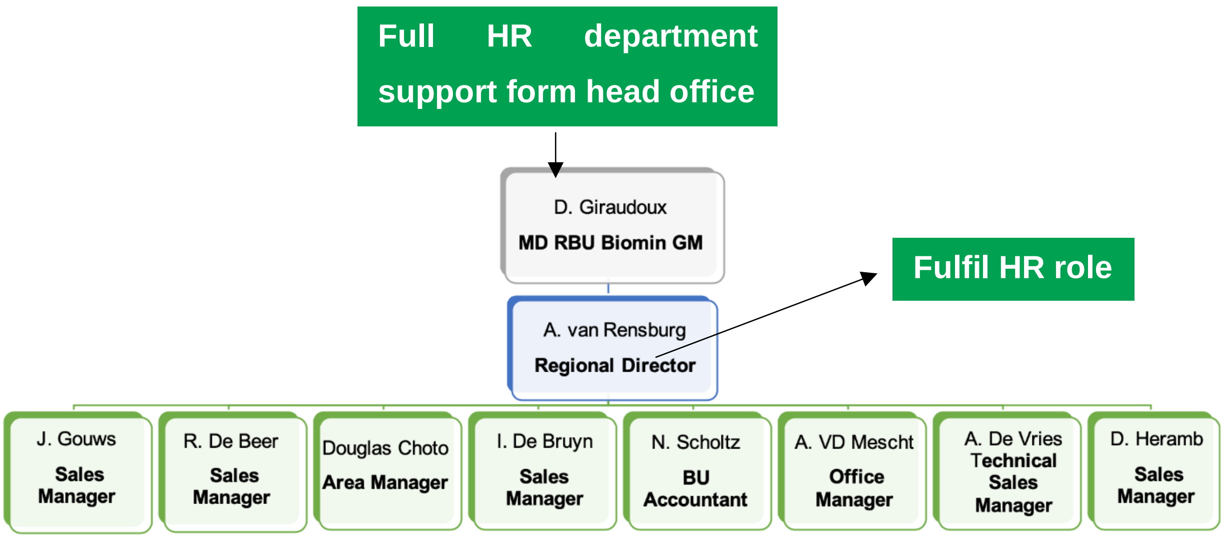


Figure 27: Organogram incorporated with an external HR department

3.10.3. SABPP (South African Board for People Practices)

The SABPP (SA Board for People Practices) guidelines are adhered to when dealing with HR practices in the South African context. The South African Board of People Practice Standards (SABPP) provides standards and guidelines for People Practices benchmarked against international standards.

These guidelines are structured around three key phases towards ensuring that practices are aligned towards ensuring business impact.

The key phases include:

Three key phases		
Preparation: Strategic HR Management; Talent Management; HR Risk Management	Dealing with strategic alignment, available talent, and HR risk management	**Talent management** is a company's commitment to source, employ and retain the most talented employees available on the market. Talent management should be a main HR business strategy especially for a company whose main revenue is collected by sales. Some key factors that will be needed are to focus on certain key

		employees to ensure that the right individual is equipped with the right tools in the right role. Talent management is important because of two main reasons. The first ensures that organisations acquire and retain essential talent successfully. The second with the extent to what these employees is engaged to. Morton (2005, p11) "Talent management is integral to engaging employees in the organisation". **Succession Planning** - To know the talent that is currently at hand within the company. What roles are important to ensure success? Are there currently people employed or equipped to fill those roles needed? Plans need to be ready and at hand to ensure that decisions can be made to keep the company running smoothly.
Implementation: Workforce Planning, Learning and Development, Performance Management, Reward and Recognition, Employee Wellness, Employment Relations, Organisation Development, HR Service	Inclusive of key transactional and transformational practices including technology platforms and service delivery as a business partner.	**Career Development** – Talent retention or hiring a person from within is preferable. Support potential and upcoming leaders by equipping them with the tools needed so they can propel with their profession. **Performance Management** – Ensuring that an employee with a talent for sales or manufacturing are lined up with roles that suit them. Aligning talent with objectives. **Learning and Motivating** – Learning is more than just training. Learning is a key component in the procurement of data and abilities, that yields information leading to the experience needed. As soon as employees see how their "learning"

Delivery, HR Technology.		development grows and has an impact on the company, then only will they experience and see how significant they are to the company. **Strategic Employee Planning** – Key personnel should be recognized together with the strategic plan and objectives to move the company forward towards the goal. **Talent Acquisition and Retention** – New talent is always essential, a new perspective on an old problem tends to come up with a solution that was previously missed. The same can be said about hiring an individual that is currently employed at the company to be cost-effective. When working with talent pooling, an internal, as well as the external look, is always required.
Review: HR Measurement	Metrics to identify areas for improvement people practices.	**Servant leadership** is a **leadership** philosophy in which the main goal of the **leader** is to serve. This is different from traditional **leadership** where the **leader's** focus is the thriving of their company or organisations. **Transformational leadership** is a theory of **leadership** where a **leader** works with teams to identify needed change, creating a vision to guide the change through inspiration and executing the change in tandem with committed members of a group; it is an integral part of the Full Range **Leadership** Model.

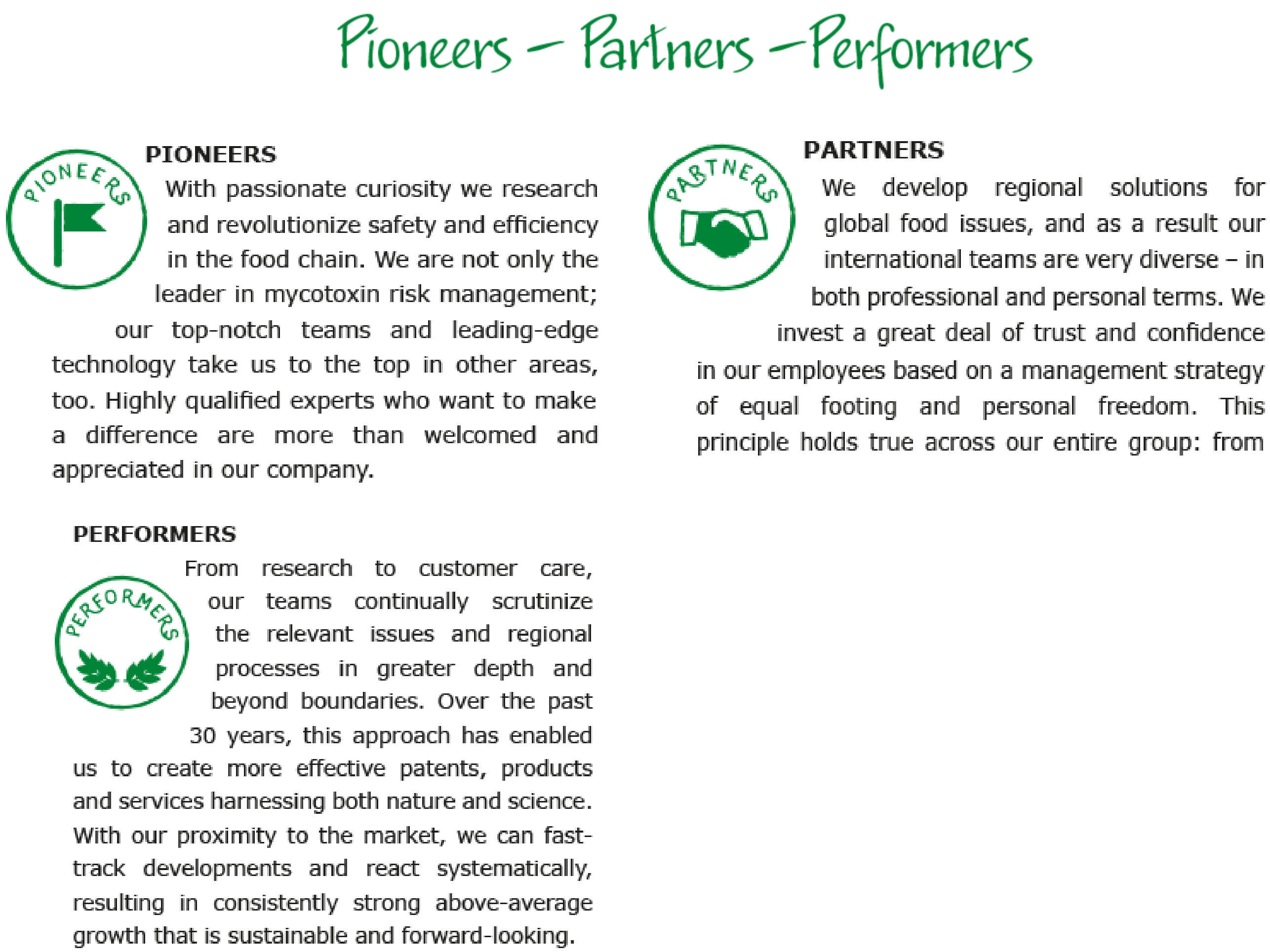
Table 11: Three key phases towards ensuring practices are aligned (SABPP:2020)

This is the ability of strong leadership to derive the change in strategy. Senior management is enabled to underpin the company's vision, mission, and values during strategy implementation. Strategic leadership is essential in strategic implementation as it assigns the executive team to oversee strategic implementation roles. This is important as it will influence ethical positions, behaviours, and actions (Kheyley, and Ragui, 2018).

Within the Biomin South Africa context, regional businesses and business units geographically dispersed their leadership on business units' influences behaviours, performances, and organisational culture.

3.10.4. Organisation Culture

According to Michael Morcos (2018) "Organisation culture is the characteristic and the tangible personality originated inside every organisation.



Pioneers – Partners – Performers

PIONEERS

With passionate curiosity we research and revolutionize safety and efficiency in the food chain. We are not only the leader in mycotoxin risk management; our top-notch teams and leading-edge technology take us to the top in other areas, too. Highly qualified experts who want to make a difference are more than welcomed and appreciated in our company.

PERFORMERS

From research to customer care, our teams continually scrutinize the relevant issues and regional processes in greater depth and beyond boundaries. Over the past 30 years, this approach has enabled us to create more effective patents, products and services harnessing both nature and science. With our proximity to the market, we can fast-track developments and react systematically, resulting in consistently strong above-average growth that is sustainable and forward-looking.

PARTNERS

We develop regional solutions for global food issues, and as a result our international teams are very diverse – in both professional and personal terms. We invest a great deal of trust and confidence in our employees based on a management strategy of equal footing and personal freedom. This principle holds true across our entire group: from

We know that behind each, and every success is a team of highly motivated and talented individuals. With global activities spanning the Americas, Europe, Africa, and Asia-Pacific, we are at the forefront of our field. By offering an open corporate culture with room for professional growth and career development, we trust that growing a business is first and foremost about nurturing high calibre talents.

Biomin culture emphasises on international and process-oriented teamwork. Respecting cultural differences within their worldwide operations is a must. Biomin treats all human beings with dignity and respect regardless of age, gender, religion or nationality.

There are a few aspects of Organisational Culture that will assist Mr Albert van Rensburg to analyse and ensure that a healthy organisational culture prevails. To become an organisation with a healthy culture, all employees, supervisors, and managers should all be on the same page as the people in charge. The following three distinct areas should get attention when an effective and sustainable human resource strategy is developed:

Human resource strategy	
Labour Planning:	Labour planning refers to staffing policies that deal with a.) Employment stability, b.) Work schedules, and c.) Work rules. It deals with stability policies that could treat labour as a variable cost and labour follow demand exactly or as employment constant. Holding employment constant could lead to employees not always fully utilised when demand is low within the manufacturing environment.
Job Design:	Deals with specific tasks allocated to a specific job. Heizer *et al.* (2017:450) mention 5 components of job design: 1.) Job specialisation 2.) Job expansion 3.) Psychological components 4.) Self-directed teams, and 5.) Motivation and incentive systems.
Labour standards:	Refer to the amount of time required to finish a specific job. Effective manpower planning depends on a good knowledge of the labour required.

Table 12: Organisational Culture

Biomin code of conduct and whistleblowing system

The highest value for Biomin is to protect and uphold the reputation of ERBER Group as well as the reputation of its subsidiaries and brands. Therefore, Biomin has created a business code of conduct, our ERBER Group Code of Conduct. It is in effect from now on for the entire ERBER Group and all its subsidiaries.

Each one of the - owners, managers, and employees - is responsible for behaving in line with the principles defined in the code of conduct. It is a guideline and a binding document providing information on how we all must behave in our everyday business life. It comprises the following regulations and principles of conduct:

- Respect and fairness
- Environmental protection, human resources, occupational health and safety
- Fair competition, donations and sponsoring
- Anti-corruption policies and avoiding conflicts of interest
- Accepting and offering gifts and other gratuities
- Use of resources, information, and social media
- Conflicts of interest/personal relationships in the workplace

Biomin expects all colleagues, regardless of hierarchy level or position to adhere to this mandatory code of conduct. Colleagues who witness any illegal activities or violations of the Code of Conduct must report the incident to their superiors immediately. The report may be made in writing or verbally. The employees' superiors are required to document the incident and report it via email to compliance(at)erber-group.net. If employees fear that they will be disadvantaged in some way, they may submit a report through a representative they trust. It is also possible to submit a report anonymously, either via email to the address above or to the Internal Audit department by mail. All reports will be investigated thoroughly. In addition to our Code of Conduct, Biomin has set up a whistleblowing system called "ERBER Speakout" – in certain situations, when all other channels for reporting concerns are inefficient or if the whistleblower is at a disadvantage. This also guarantees the anonymity of the whistleblower. The communication tool is managed by an external service provider.

Workplace Safety & Ethics

Biomin has implemented an overall Occupational Health and Safety Standard at the ERBER Group to ensure their employees can work in a safe workplace. Our goal is to increase the well-being of all our employees and to reduce and prevent occupational accidents at all means.

Biomin implemented ethical standards in order to guarantee an innovative and effective supply chain, sustainable employment and long-term partnerships, as well as to reduce risk to a minimum and to protect our company reputation.

Corporate social responsibility

Corporate social responsibility has long been a “nice to have”, but times have changed, and focus have shifted to the companies Act No.71 of 2008. Expressing the importance across boards of directors to comply when conducting business. The King Report supports this law by directing companies to comply with ethical behavior in support of integrated social and environmental concerns.

Since the year 2009 we have supported more than 50 social projects in 25 countries around the world: Asia, Africa, Latin America, and Europe. Our partners: "MENSCHEN FÜR ANDERE" (Jesuit mission) globally, and "Bauern für Bauern" *(Farmers for Farmers)* in Austria.
The focus of our projects lies on education, improvement of the quality of potable water, agri-development, agricultural education projects, family and children's welfare, as well as the support of victims of violence and natural disasters, and people fleeing both. We are convinced that a future-oriented society is in need of two things: innovative entrepreneurial spirit and social awareness.

Examples of healthy and unhealthy cultures to be considered for an effective company culture:

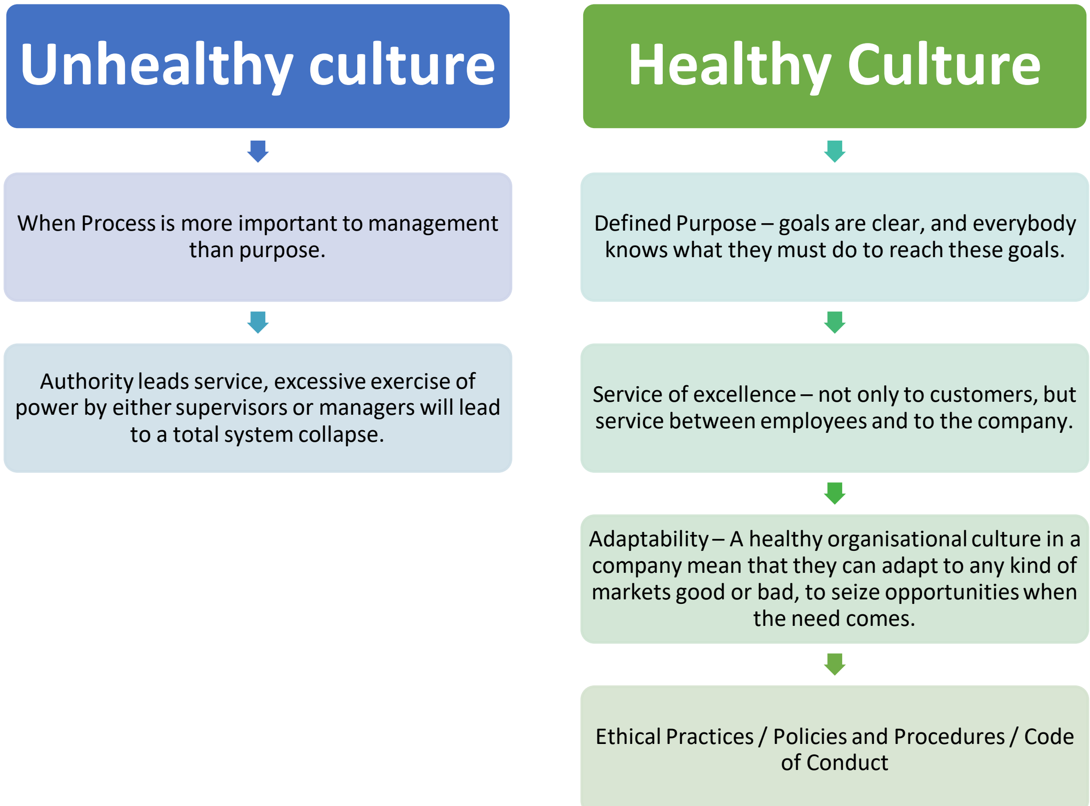


Figure 28: Unhealthy and Healthy Culture's

There is a strong relationship that exists between culture and strategic management through corporate performance management. Organisational culture is intangible and provides determination on how organisations present themselves, do business, and treat people (managers, shareholders, employees). Through the organisations' shared values, behaviours, and visions, they help support strategy implementation (Genc, 2017). Biomin South Africa has an influential organisational culture that is rooted in operations performance that helps in strategy implementation.

3.11. The VRIO

The VRIO framework will help in identifying their strengths and weaknesses.

Valuable: the physical resources of the company have been identified as valuable since they make use of the highly researched and developed products that cannot be done by other companies. Their patents are also identified as valuable since no one can buy the patents until the time given. Their human resources are identified as valuable since they are specially trained for the purpose. The distribution channel of the company is valuable because of its mass way of distributing through national as well as industrial channels.

Rarity: the physical resource of the company is rare since they have a large operational are and resources to perform and expand. The human resources are also valuable since they are specially trained and qualified. The distribution channel is however not valuable since they are dependent on the worldwide suppliers for the raw materials.

Imitability: the human resources are imitable to a large extent since they can be taken up by other companies and trained differently. The research and developments cannot be imitated since they are performed by the scientists working with the firm and have high security and reliability issues. Their supply chain can, however, be imitated since the supply chain channels are independent.

Organisation: The company is considerably big and has a wide range of supply chains. The company caters the needs of the customers of at least 100 countries. It is also reputed for their in-house research and developments that have resulted in the production of more advanced and sustainable products. The dedicated personal assistance and the partners have made the organisational facts reliable and strong.

Resources	Valuable	Reliable	Imitable	Organised
Patents	yes	yes	no	yes
Distribution	yes	no	yes	yes
Research and development	yes	yes	no	yes

Internal analysis (VRIO) of Biomin South Africa

In the poultry sector, Biomin has put in place many valuable strategies to win a bigger share of the poultry market. In this analysis, various strengths of Biomin as far as poultry products are concerned are pointed out.

Valuable

Through various researches that are conducted by the on poultry, Biomin can come up with a lot of valuable products that boost on poultry performance regarding quality poultry products such as eggs and meat for both local and international markets (Buresh, 2018). Some of the areas that Biomin is majoring its researches is poultry feeds, management techniques for quality life enhancement and environmental problems that affect poultry life to come up with various natural and technical means of adjusting some environmental conditions for better poultry productivity.

Moreover, Biomin is conducting seminars and educational events to reach out to poultry producers to be able to share with them some important knowledge and new techniques about poultry. This is valuable for producers to be able to get some new information and apply in their farming practices for quality productions (Hofmeyr, 2019). To the company, offering such educational services are very vital since it boosts customer trust and increases the market share for Biomin keeping it at the top over the competitor.

Rarity

Biomin is known for various unique animal feeds and technologies that are not common within the market. On the poultry sector, there is the same case since the organisation is bringing a lot of experience and competencies together for the best researches which always lead to advanced products (Mokubedi et al., 2019). Educational services that are offered to producers are not common among other competitors in the market and therefore Biomin has an upper hand regarding poultry product.

Imitability

Following the kind of technology that Biomin is putting in place, its poultry products are one of their kinds and state-of-the-art which are not easy to copy (Moloto and Seeletse, 2016). Furthermore, Biomin is a very big organisation that has employed many experts who are mandated to conduct research and develop various poultry products within the organisation and hence there are very minimal chances of imitation of the Biomin poultry products by any organisation. Regarding the researches, operations are done internally, and the various product developments are kept as the company secret that provides no room for internal developments getting to the public without authorization.

Organisation

Since 1983 when Biomin was founded, it has remained to be one of the known players in the agricultural products majoring in animal feeds through various innovative techniques of solving agricultural problems. In its operation, Biomin has managed to place sustainability at the center through involving in sustainable processes when developing poultry products as well as other animals' feeds (Nkukwana, 2018). This has managed to make Biomin bigger and better making it forge to the global market and can now serve over 100 local markets with its trusted poultry products.

Internal Resource Analysis:

The internal resource analysis help to build capacity, create a competitive advantage and enable organisations to identify their strengths and weaknesses in their functional areas (Ehlers and Lazenby, 2014:114). An organisations core competitive resources would include human capital, organisational resources and management capabilities to create a competitive advantage. Organisations also must harness their tangible and intangible assets to gain a market lead and superiority. Intangible assets for Biomin would be captured in their reputation and brand name, including the patents and copyrights apart from the specialist staff and international and local resources. Therefore, the organisations resources are more important than the industry in which it operates (Ehlers and Lazenby, 2019:144-145).

The resource-based view (RBV) indicates, that no two organisations, even in the same industry, will have similar capabilities, because of the difference in resources and experiences (Ehlers and Lazenby, 2019:145). This view highlights that the organisation's resources and capabilities will determine how effective and how efficient they operate. The RBV also encourages managers to understand their resource capabilities, their uniqueness (USP) and how to leverage them strategically (Ehlers and Lazenby, 2019:145).

Tangible assets:

This would include financial resources (financial situation – cash and reserves), physical resources (location, equipment) and technological resources (trademarks, copyrights).

Intangible assets: Human resources, innovative and reputational resources – (employee knowledge and skills, intellectual property, brand names and product and service quality).

Intangible assets give organisations and advantage, where competitors cannot imitate, purchase, or replace them. Therefore, it is more important for an organisation to rely on and harness its intangible assets (Ehlers and Lazenby, 2019:146).

Human Capital, tangible and intangible assets

Biomin creates a good environment for employees to flourish in. Most of the core employees have been with Biomin from the startup of the business. They were responsible for the development of the Biomin brand name an all its patents and trademarks. The core employees are Erick Erber and Eva-Maria Binder and her husband Hannes Binder.

The current research and development team are one of Biomin's strengths. In conjunction with numerous Universities all over the world, does the research and development team continually develop new products and techniques to combat mycotoxins. The capabilities of their research and development and close ties with universities gives Biomin a competitive advantage over the competitors. The advances of the research into mycotoxins that Biomin has done makes Biomin the leader in the work in the management of mycotoxins.

Most of Biomin's products are produced by themselves in 4 different countries. The production sites are in Austria, China, North America, and South America. It is strategically placed to serve the target market in the countries. Biomin is trading in more than 140 countries over the world. That ensures that they have a worldwide dominant presence in the feed additive market.

The most important tangible asset of Biomin is all their patents and trademarks. Currently, Biomin is the only company in the world that can scientifically prove that their products can eliminate Fumonisins, Deoxynivalenol and Zearalenone. They are also the only country in the world that has European Union product registration for the effective management of mycotoxins. To receive EU registration, a product must have 90% and above-proven efficacy. Numerous companies can prove efficacy in a laboratory but cannot prove it in the live animal. The reason for that is that animals have different PH values in their stomachs during the day. These differences in PH destroys most additives or neutralise their efficacy when trying to bind mycotoxins.

Core Capabilities:

An organisations capabilities is a network of skills and processes that determines how effectively and efficiently an organisations resources or input is transformed into output. Resources alone do not result in productivity but need to be processed to gain some value and therefore the success of the resource is gained in the skills and knowledge of the employees (Ehlers and Lazenby, 2019:146). The core capabilities of an organisation lie in their human capital and their ability to harness the skills and knowledge of its employees. Organisations must find ways to utilise the knowledge from their employees, create an environment that allows employees to fit their knowledge to the advantage of the organisation. Capabilities are therefore developed in the different functional areas with an emphasis on capability development at senior management levels for sustainability. A business should also drive dynamic capabilities, where organisations integrate and restructure capabilities to adapt to a fast-changing environment. This need to be combined with agility, flexibility, innovativeness, and coordinated efforts to deploy resource capabilities (Ehlers and Lazenby, 2019:146-147).

Core Competencies:

When an organisations performance is above the industry average, can they conclude core competencies. The organisation add greater value, based on superior organisational skills and knowledge for example in design, technology, or high-quality products. The resource-based view highlights uniqueness to create a sustainable competitive advantage (Ehlers and Lazenby, 2019:148).

- These characteristics define the organisation from its competitors
- Identified and exploited core competencies ensure the competitive edge and
- Human, physical, patents, brand and capital all contribute to the company's core competencies.

3.12. Research and development

All application orientated basic research of Biomin is conducted by its in-house RandD team at the Biomin Research Center (BRC) at Campus Tulln Austria. A total of eighty researchers engage in microbiology, molecular biology, cell biology, analytics, fermentation, bioactive ingredient formulation, and quality control.

Collaborations with global institutions and organisations as well as joint projects with universities and research institutions are carried out to further advance scientific knowledge regarding mycotoxins, feed additives, and animal nutrition. According to the company's information, Biomin currently collaborates with more than 200 academic and research institutions worldwide.

The firm's products include acidifiers, phytogenic, probiotics, silage preservation, and mycotoxin-detoxifying agents. Biomin is considered a market-leading pioneer in mycotoxin risk management solutions. It is the first and only feeds additive company to obtain EU authorization for substances with proven mycotoxin counteracting properties.

- 200 Respected laboratories, academic and research institutions worldwide.
- More than 150 scientific publications per year
- Over 200,000 research hours per year
- More than 200 research and development cooperation partners globally

- Over 30 research projects with EU and national funding agencies - 120 feeding trials per year
- Over 12,000 biological samples analysed annually

3.13. Financial Analysis

According to (Cornelius and Weyers, 2017:271) the purpose of financial statements is to provide reliable information to users and the management of an entity. The information is used to make financial decisions. However, these decisions can only be made once the information contained in the financial statements has been measured and analysed. This process is known as the ”analysis and interpretation” of financial statement and involves the analysis of the contents of the financial statements to obtain certain information so that conclusions may be drawn regarding the performance, financial potential, stability and growth of the entity.

Gross profit percentage

According to (Cornelius and Weyers, 2017:274) gross profit percentage is important to make a thorough analysis of the gross profit percentage of an entity to determine if the percentage is comparable with other similar entities and if it is acceptable for the type of business. The gross profit indicates the profit made by the entity when considering only the sales and purchases figures.

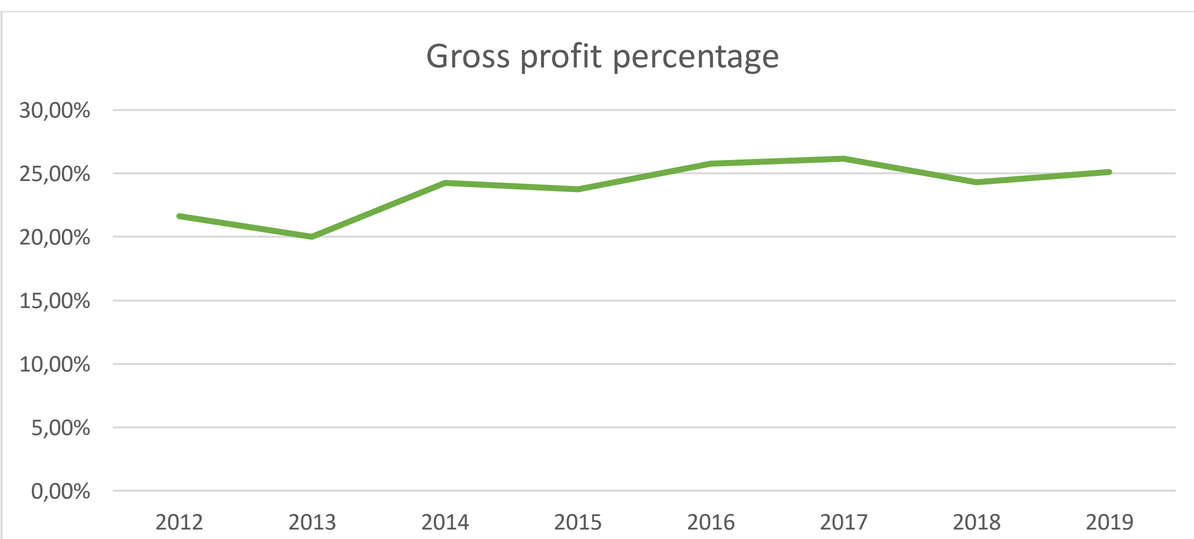


Figure 29: Gross profit percentage

Biomin has an average gross profit percentage of the past 8 years of 23.8%. Biomin started trading in late 2011. The gross profit margin was at its lowest in 2012 and 2013 at 21.65% and 20.01%. Biomin imports all stock in Euros. They are very dependent on the changes in the exchange rate. It takes 6 to 8 weeks from ordering products until it is delivered in South Africa. It makes it difficult to accurately, and consistently change prices to keep track with the exchange rate. The gross profit percentage stabilised after 2014 through 2019 with a target percentage of 25%. The gross profit percentage is dictated by Biomin's head office and by looking at the prices of alternative products in the market.

Net profit percentage

According to (Ungerer, 2016:182) is the Return on Sales (ROS) a ratio widely used to evaluate an entity's operating performance. It is also known as" operating profit margin" or "operating margin". ROS indicates how much profit an entity makes after paying for variable cost of production such as wages and raw materials (but before interest and tax). It is in return achieved from standard operations and does not include unique once-off transactions.

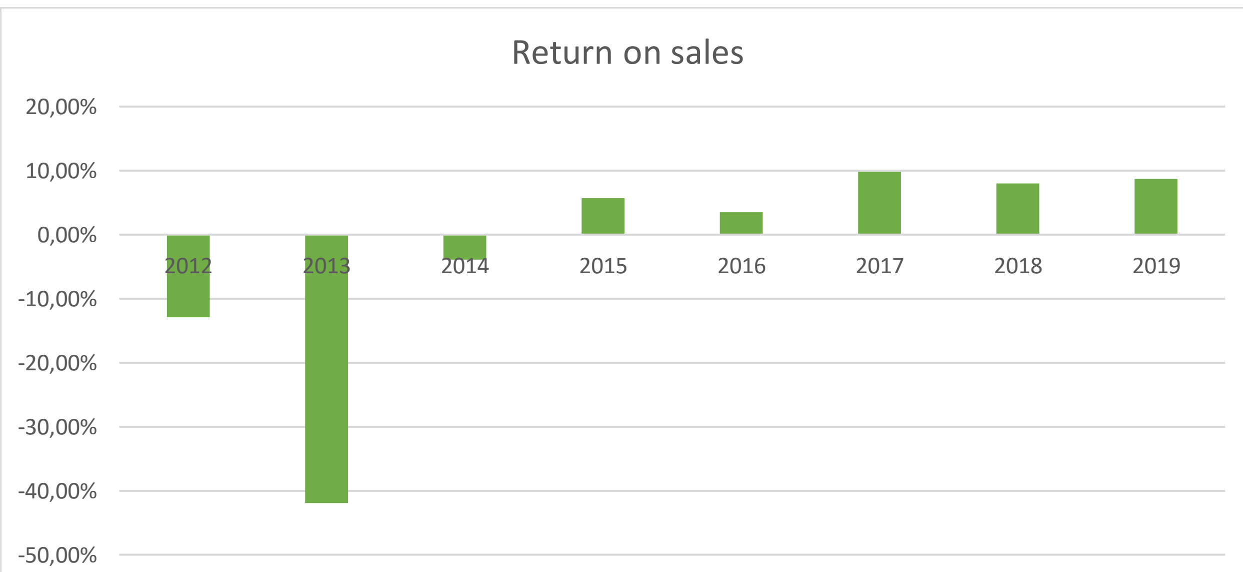


Figure 30: Return on Sales (ROS)

Biomin only became profitable in 2015. The huge loss in 2013 was due to exchange rate differences of R4 million. Biomin has spent large amounts of money on marketing through advertising in relevant magazines and by sponsoring tradeshows all over the country to establish their name in the feed additive market. That also increased their travel expenses considerably.

Biomin's ROS dropped again in 2016 due to the drought South Africa experienced that year. Biomin had a decrease in sales of 22.9% because of the drought. Biomin's sales recovered in 2017 with an increase of 37.66% in sales compared to 2016. The continued drought in the Northern Cape and Eastern Cape provinces had a negative effect on their sales in 2019, which lead to only an increase of 0.1% of sales compared to 2018. Biomin hired two new employees at the beginning of 2018, which increased their salary expenses by 20%. The purpose of the new employees was to increase Biomin's sales in neighbouring countries like Zimbabwe, Zambia and Mozambique. Sales are steadily increasing in these mentioned countries, which would justify their appointments in the future. The Sub-Saharan countries is a focus area for Biomin.

Return on assets

According to (Ungerer, 2016:182) Return on assets (ROA) is a financial ratio that shows the percentage of profit that a firm earns in relation to its overall resources (total assets). ROA is a key profitability ratio that measures the amount of profit made by a firm per rand of its assets. ROA gives an idea of how efficient management uses the firm's assets to generate profit.

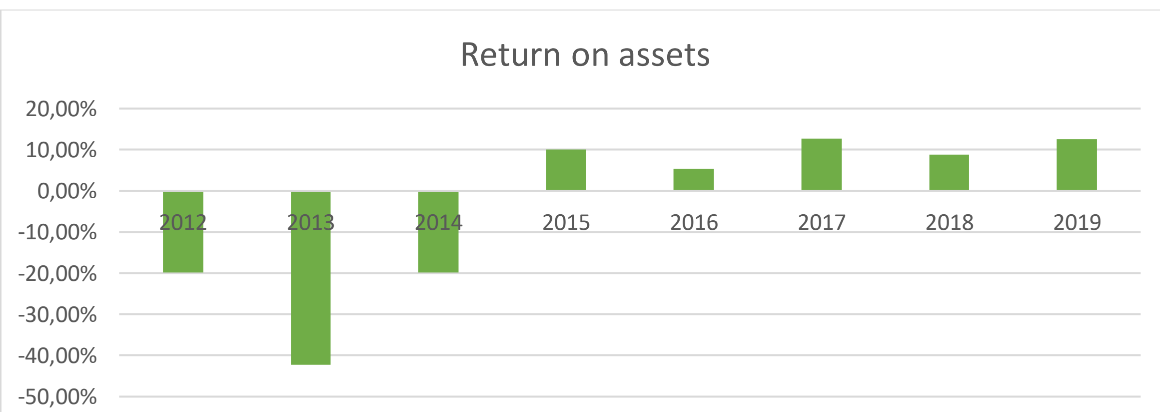


Figure 31: Return on assets (ROA)

The ROA has drastically increased from a negative in 2012 to 12.56% in 2019. The reason for this was that Biomin only became profitable in 2015. The further reason for a decrease in ROA is an increase in assets that have failed to produce the expected revenue. The decrease in ROA from 2017 of 16.67% to 8.75% in 2018 was due to the increase in inventory and trade receivables of 53.45%.

Current ratio

According to (Ungerer, 2016:182) the current ratio indicates a firm's ability to meet its short-term debt obligations. The current ratio measures whether a firm has enough resources to pay its debts over the next 12 months. Potential creditors use this ratio in determining whether to make short-term loans. The current ratio can also give a sense of the efficiency of a firm's operating cycle or its ability to turn its product into cash.

The current ratio of Biomin was 0.68:1 in 2012, 0.59:1 in 2013, 0.62:1 in 2014, 0.81:1 in 2015, 0.8:1 in 2016, 1:1 in 2017, 1.08:1 in 2018 and 1.28:1 in 2019. The current ratio should generally be higher than 1. For most industrial companies, a ratio of higher than 1.5:1 may be acceptable.

According to this analysis, Biomin was only able to settle their current liabilities after 2017 but is not yet a good ratio of at least 1.5:1. Biomin will struggle to sell their product quickly to enable them to settle their current liabilities.

Quick ratio

According to (Ungerer, 2016:183) the quick ratio is a measure of a firm's ability to meet its short-term obligations using its most liquid assets (near cash or quick assets). Quick assets include those current assets that presumably can be quickly converted to cash at close to their book values. The quick ratio is viewed as a sign of a firm's financial strength or weakness: it gives information about a firm's short-term liquidity

Biomin's quick ratio was 0.35:1 in 2012, 0.29:1 in 2013, 0.26:1 in 2014, 0.26:1 in 2015, 0.27:1 in 2016, 0.47:1 in 2017, 0.38:1 in 2018 and 0.54:1 in 2019. The commonly accepted ratio is 1:1. This means that Biomin relies heavily on the efficiency of their inventory turn-over to keep them liquid.

Debt-to-equity ratio

According to (Ungerer, 2016:183) the debt-to-equity ratio is a financial ratio indicating the relative proportion of the entity's equity and debt used to finance its assets. The ratio is also known as financial leverage. The debt-to-equity ratio is the key financial ratio and is used as a standard for judging a firm's financial standing. It is also a measure of a company's ability to repay its obligations. When examining the health of a firm, it is critical to pay attention to the debt/equity ratio. If the ratio is increasing, the firm is being financed by creditors rather than from its own financial sources, which may be a dangerous trend.

Biomin's debt-to-equity ratio is extremely high at 3.88:1 at this stage. The norm is 1.5-2 and less. This means that Biomin will struggle to attract investors or secure loans. Biomin's holding company is their only creditor. It derives from ordering stock from them. Biomin does not have any other creditors or long-term loans.

Inventory turnover rate

According to (Ungerer, 2016:183) this ratio measures the number of times a firm's investment in inventory is turned over during a given year. The higher the turnover ratio the better, since a firm with a high turnover requires a smaller investment In inventory than one producing the same level of sales with a lower turnover rate. The firm's management must be sure, however, to keep inventory at a level that is just right to miss sales. This ratio indicates the efficiency in turning over inventory and can be compared with the experience of other companies in the same industry. It also provides some indication of the adequacy of a firm's inventory for the volume of business being handled. If a firm has an inventory turnover rate that is above the industry average, it means that a better balance is being maintained between inventory and cost of goods sold.

Biomin's inventory turnover rate is 2.46 times in 2012, 1.37 times in 2013, 2.1 times in 2014, 1.91 times in 2015, 2.03 times in 2016, 2.54 in 2017, 1.68in 2018, 2.65 in 2019.

Biomin's inventory turn-over is slow thus making it difficult for efficient inventory rates. Long distances and longer periods between orders and delivery from overseas play a vital role in this.

Stock is kept on hand but does not necessarily sell immediately. Better ordering tools should be considered to ensure that they only order what they need in a month. The reason as discovered was that it takes at least two to three months from ordering until delivery. This was the norm even before the Covid-19 pandemic.

Biomin’s policy dictates to have at least two months of safety stock. The reason for this big safety stock is that they cannot afford to run out of stock. It will have dire consequences for the feed millers that works on a schedule when to produce certain animal feeds. If Biomin is not able to deliver stock in time, will it have a chain reaction down the stream to the producers.

Average collection period

According to (Ungerer, 2016:183) the average collection period measures how long a firm’s average sales rand remain in the hand of its customer. A longer collection period automatically creates a larger investment in assets.

Biomin’s average collection period was 66.58 days for 2012, 79.70 days in 2013, 66.32 days in 2014, 50.39 days in 2015, 45.33 days in 2016, 57.95 times in 2017, 80.97 days in 2018 and 51.28 days in 2019.

Biomin’s policy is for customers to pay their accounts 30 days after invoicing. That is why most of the years the collection period is above 2 months. Biomin’s largest client requested that their terms change in 2018 to 60 days after invoicing. That is the reason for the increase it took to collect the money from customers.

3.14. Biomin USP – Unique selling proposition

Organisations USP identifies what makes a business unique and valuable, a specific benefit to the customer, linked to something the competitor could or did not offer. The USP also becomes the organisation's key differentiator, almost like an invitation to choose above the competitors. Creating the USP should address the following question, what do customers want, that they are not getting from competitors? Create a difference through identified opportunities and overly state your USP as a unique benefit (Ehlers and Lazenby, 2014:178).

The question the organisation attempt to answer is what advantage should the organisation use to distinguish itself from its competitors? This organisational elevation addresses three criteria: an attribute of value and relevance to the target market, being perceived by the customer as a competitive advantage and cannot be easily imitated (Lazenby and Ehlers, 2014). Organisations rely on their distinctive capabilities, which cannot be easily replicated, even though their reproductive capabilities could be bought. It is an organisations distinctive capability that creates a competitive advantage and can be linked to their unique selling proposition (USP).

Biomin's distinctive capabilities that create a USP is the patents they have, the specialist's skills, that could not easily be replicated and their corporate identity in over 140 countries. Another USP is the distribution footprint, with warehouses in Cape Town and Durban, that enable them to reach their customers through Feed Millers.

3.14.1. 6 Steps to Creating a Unique Selling Proposition (USP)

i. Describing the target market or audience:

The aim is to know who you are marketing to, with audience precision. The target market address who you are offering your products too. Resource allocation and utilisation are for the right audience and it improves overall organisational efficiencies. Part of identifying your target market would be to address a specific need or want and refine both product and audience to ensure optimal alignment. Target market identification would address attributes like; type of audience, demographics, and competitor insights, to gain the correct assumption. Businesses must always be aware that target markets are dynamic and always evolving, therefore should always engage with customers and potential customers (Estay, 2020).

ii. Explain the problem you solve:

Address this key point from the customer's viewpoint, based on specific needs that the business can address for them.

iii. Identify the biggest distinctive benefit/s:

Highlight 3 to 5 benefits that a customer will gain and that set your business apart from the competitor, explaining the importance in relation to your competitors.

iv. Define your promise:

Your unique selling proposition (USP) should make a pledge to your customers and this promise could be implied, rather than explicitly stated.

v. Combine and Rework:

Summarize the information into a short phrase or paragraph, merging ideas and phrases and simplify the flow.

vi. Cut it down:

Condense the information in step 5 into one phrase, highlighting your USP into a specific and simple idea. Repeat this exercise until it becomes a final USP (Gregory, 2020).

Implementation of 6 steps:

According to Alyssa Gregory (2019) a USP is a summary of what makes a business unique and valuable to its target market. The question is; how does Biomin benefit it's clients better than any competitor? By answering this question Biomin can use this as a company slogan and should be incorporated into all the marketing activities of Biomin (Gregory, 2019).

There are six steps in creating a USP, an analysis will follow on the USP's of Biomin South Africa to better understand the unique and valuable offering to the African market.

Implementation of 6 steps		
Step i	Describe your target audience	Feed mills/premixes, big/medium-sized farms, and contractual partners.
Step ii	Explain the problem you solve	Improve the feed quality, yield, and quality of food from animal origin, and animal health.

Step iii	List the biggest distinctive benefits	- State of the art and brand-named patented technology. - Exclusive copyright to their products (mycotoxins). - Improved quality and association with external quality standard certifications, i.e. ISO9001, HACCP Approved, GMP+ Feed Safety Assurance, QS. Quality Scheme for Food and FAMIQS (Biomin, 2010, about, who-we-are). - Long-term business relationships with their suppliers as part of the value chain and promises product safety and traceability of raw materials, sourcing, and manufacturing. - **Biomin's** research and product ingredients are a trade secret. - 200 Respected laboratories, academic and research institutions worldwide. - More than 150 scientific publications per year. - Over 200,000 research hours per year. - Over 30 research projects with EU and national funding agencies - 120 feeding trials per year. - Over 12,000 biological samples analysed annually.
Step iv	Define your promise	- Biomin, a leading company focusing on health in animal nutrition, develops and produces feed additives, premixes, and services to improve animal health and performance, in an economically viable way. Leveraging on the latest technologies and extensive research and development programs, Biomin offers sustainable quality products which include solutions for mycotoxin risk management, a ground-breaking natural growth-promoting concept as well as other specific solutions which address dietary requirements for swine, poultry, dairy, and aquaculture. - We care for healthy animal nutrition.

		- We develop innovative and sustainable solutions to ensure healthy and safe animal nutrition for our customer.
Step v	Combine and rework	- Biomin provides state of the art and brand-named patented mycotoxins feed additives to feed mills and big/medium-sized farms. They solve a problem for the end-user by improved feed quality, yield, and quality of food from animal origin, and animal health. Leading the market with external quality standard accredited certifications and broad research in animal health. By focusing on sustainable quality products which include solutions for mycotoxin risk management, solutions which address dietary requirements for swine, poultry, dairy, and aquaculture.
Step vi	Cut it down	Developing innovative and sustainable solutions to ensure healthy and safe animal nutrition for our customer with years of network and experience as a brand name.

Table 13: Six steps in creating a USP

3.15. Critical Success Factors (CSF)

The concept of CSF is concerned with key factors in an organisation, which must go well to ensure organisational success. These key factors must be given special and continuous attention to achieve higher levels of performance. Critical success factors aim to identify critical areas and measures to identify these areas for improved management. The CSF method facilitates a top-down analysis, identifying essential issues that gradually evolves. CSF focusses on the following key components: must be vital to the organisation, must benefit the organisation, aligned to high-level goals, and linked to the organisational strategy.

Critical Success Factors (CSF)	
1. Organisations should identify teams that will be working with the critical success factors.	This should include senior managers and key staff members including consultants.
2. Have staff members share their ideas and feedback.	Create a culture where employees can share their ideas and provide feedback.
3. Utilize multiple frameworks to examine key elements of organisational long-term goals.	SWOT analysis; Objective advantage scope; Strategic plan; Change agenda.
4. Determine key factors in achieving your long-term goals.	Your SWOT, OAS, Strat plan and Change agenda will indicate your critical success factors.
5. Implementation of your strategy and CSF (Lucco, 2020).	

In order to identify possible CSF's for Biomin, the mission and objectives should be examined to see which areas of the business need attention so that all missions and objectives can be achieved.

3.16. Operations

Biomin uses textbook operations management: Biomin uses technology to help streamline the ordering process by utilising CRM and ERP systems to boost efficiency and lower errors. Biomin emphasises products that are natural and anti-biotic free, and this is further complemented by the large-scale research and development done by Biomin and the continues impairment of one of their flagship products Mycofix®. The distribution channels followed by Biomin is an excellent example of effective and SMART logistic management. By keeping the export logistical arrangements like the export documents in house, Biomin ensures they can track all shipments/orders. By outsourcing the areas and acknowledging they are not transport experts, they can mitigate the risk to the company and rather focus on their core business. Their ISO 9001 certification emphasises Biomin's commitment to high-quality processes

All Biomin's stock is purchased from its headquarters in Austria from Biomin GmbH (Mother Company). It takes about 6 to 8 weeks from the date of order before the shipment arrives in Cape Town or Durban Harbour. The stock is cleared by a clearing company called GAC Laser (Pty) Ltd. They handle all the legal requirements with customs and other relevant parties like state vet inspections.

Once GAC Laser (Pty) Ltd receives the containers from the harbour, it is transported to their warehouse, where the containers are unpacked, and empty containers returned to the shipping line. Some of the stock will remain in the warehouse of GAC Laser (Pty) Ltd. It remains to be distributed to all Biomin's clients in the Durban area. A similar process is followed for the Cape Town shipments – the only difference is that they store the stock at the premises of an existing client, Biofarm Bemarking (Pty) Ltd.

This client is responsible to distribute the products of Biomin on their behalf in the Cape region. Biofarm Bemarking has clients that they sell to from their warehouse. Biomin also uses Biofarm's warehouse to sell directly to their clients.

Once the stock has been received in the Durban warehouse, it will be moved to the main warehouse in Klerksdorp. Biomin has a working relationship with Golden Vision Logistics (Pty) Ltd that handles all logistics from the Durban warehouse to the main warehouse which is situated in Klerksdorp. They are also responsible for distributing all the inventory from the Durban, Cape Town, and Klerksdorp warehouse directly to Biomin's clients.

Golden Vision Logistics uses subcontractors to transport the inventory from all warehouse to the clients. The main subcontractors are City Logistics that deliver to clients that are more than 200 km from the relevant warehouse to clients. Tate Logistics transports all the inventory from the Durban harbour to Klerksdorp warehouse. Poultra Transport is responsible to deliver large orders from Klerksdorp warehouse to Biomin's clients in a radius of 250 km.

All smaller loads, less than 500 kg are distributed by Skynet. Louw's Transport is responsible for the delivery from the clearing agents in Cape Town to Biofarm Bemarking.

From Biofarm Bemarking the inventory is distributed by Intertown Transport. All of the abovementioned subcontractors have the relevant insurances needed for the transport of Biomin's products, which keeps Biomin's risk low regarding the transport of goods.

Order processing of Biomin

Most of the orders from Biomin's clients are received electronically by mail. The order is received by the office manager or the accountant. Once the order is received, will it be processed by the accountant. The orders will be loaded on Biomin's ERP system called Microsoft Axapta. Order is then forwarded to Golden Vision Logistics (Pty) Ltd and the relevant person in charge of dispatch in the relevant warehouses. Golden Vision Logistics (Pty) Ltd will then arrange the delivery of the products, 2 to 3 working days after order is received by Biomin. The relevant warehouse managers are responsible to choose the products ordered by the client and capture the amount and batch number on the Goods Delivery Note (GDN). Once the inventory is delivered to the customer, will the relevant transport company forward the proof of delivery to the accountant or office manager at Biomin. After receiving the POD, only then will the client be invoiced for the order.

Placing of orders of inventory from Biomin GmbH

Biomin GmbH has a dedicated team of employees that handles the processing and arranging of transport of inventory from Austria to South Africa. The accountants of Biomin will place an order to the relevant person in Austria that is responsible for South Africa. This person will handle all the relevant tasks from placing an order at the production plant to the booking of shipping lines to South Africa. Export documents are forwarded to the office manager, who in turn will forward this information to GAC Laser, the company that handles the clearing of goods.

There is insurance on the goods dispatched from Austria, called Cost, Insurance, and Freight (CIF). CIF is considered a more expensive option when buying goods. This is because the seller uses a forwarder of his or her choice who may charge the buyer more to increase the profit on the CIF transaction. This is an optional service but protects the goods while in transit. Communication can also be an issue because the buyer relies solely on people who are acting on behalf of the seller. The buyer might still have to pay additional fees at the port, such as docking fees and customs clearance fees before the goods are cleared.

Stock Control

Biomin must do a physical stock count of all products every 6 months and relevant information will be captured on their ERP system. Products that have expired or that were damaged will then be written off. Stock will be moved to a quarantine area once it has expired or was damaged. After the stock is removed from the ERP systems, will it be removed from the quarantine area and destroyed. All batch numbers are displayed on the inventory, and the goods dispatch note when stock leaves the warehouse. Biomin needs to have good traceability of all the stock that leaves the relevant warehouse. Animal Feed Manufacturing Association (AFMA) will do a thorough audit every second year at all Biomin's warehouses to ensure that they comply with the relevant legislation. Every second year Biomin will also be audited for ISO 9001 certification.

Creating Competitive Advantage through product offering

Biomin uses science to stay ahead of the competitors, through their support of animal health and performance. Biomin employs state of the art and brand-named patented technology to ensure profitable and sustainable solutions. Their core business focusses on the feed to the livestock and aquaculture, including poultry, swine, and ruminant industries in more than 140 countries worldwide. Better animal nutrition improves animal health and performance at the same time reducing the environmental footprint and growing revenue (Biomin.net).

Biomin' major investment is excellent research activities, which results in innovative proprietary solutions. The company uses a research network of partner universities, research institutions, and insights from customers and local communities. The company prides itself that they are years ahead of their competitors and that they have exclusive patent rights to their products (Mycofix®).

Another key element that provides Boimin with the competitive advantage is its focus on improved quality and association with external quality standard certifications, i.e. ISO9001, HACCP Approved, GMP+ Feed Safety Assurance, QS. Quality Scheme for

Food and FAMIQS (Biomin.net). They value long-term business relationships with their suppliers as part of the value chain and promises product safety and traceability of raw materials, sourcing, and manufacturing.

- Biomin's research and product ingredients are a trade secret.
- By using adsorption biotransformation and bio-protection they neutralise mycotoxins like aflatoxin that is harmful to animals and humans.
- Due to legislation in developed countries, legislation on animal health, and the application of antibiotics, Biomin is natural, legal, and the way forward to eliminate antibiotic dosages that are transmitted to humans upon consumption.
- Their flagship product is Mycofix.
- Legislation on animal feed and the use of hormones and antibiotics in SA are not as strict and controlled as in developed countries

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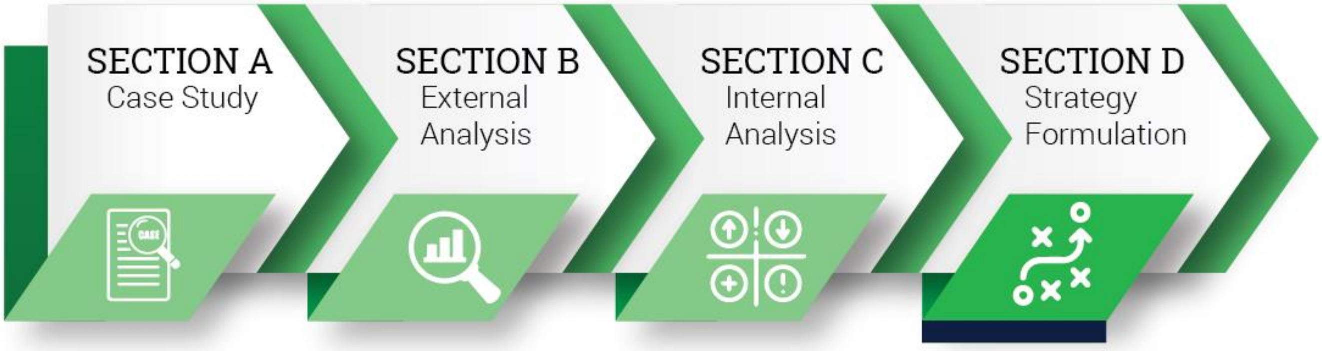


CHAPTER 4: STRATEGY FORMULATION & IMPLEMENTATION

This section is where the success will be achieved, the reality of the planned strategy and the actual achievement. The critical aspects deal with the ability to organise the time allocation of resources and ensure the required skills sets. The ability to implement is causally related to the ability to resource the plan. The correct structure, attitudes and reinforcement will be the only source of success in this phase.

4.1. Introduction

Biomin South Africa is a limited company that deals with animal nutrition and agriculture solutions. Biomin was founded in 1983 to provide support for animals through cutting edge technologies. Biomin is part of Erber Group that is committed to setting sustainable goals in carbon neutral by 2023. Biomin goal is to support sustainable agricultural for the community. To achieve this vision Biomin has had engagements over the decades on investments in scientific research and development (Rodrigues, and Naehrer, 2011). For this reason, we will focus on how the principles of strategy formulation and strategy implementation have been used to contribute to the success of Biomin. For the determination of Biomin success, its performances must be measured against the performances of its competitors and the industry investment alternatives. For Biomin to survive as an industry, it must focus on an effective re-engineering and redesigning to set up a streamlined organisation that can survive downturns. With sustainable agriculture, Biomin will meet the demands of customer's as the customer base grows by the day. Biomin has expanded in over 140 countries thus deepening their contribution to livestock and aquaculture management. These have been achieved by having an effective strategy formulation and strategy implementation.

4.2. Strategy formulation

Strategy formulation can be defined as the process an organisation chooses appropriate actions to achieve its goals and objectives. Strategy formulation is essential to the Biomin organisation's success. It will provide a framework that will lead to achieving the goals (Adobor, 2019). Employees at Biomin should be communicated to the entire strategic plan to create awareness on Biomin's objectives mission, and purpose.

Strategy formulation is concerned with Biomin's environmental changes; thus, should always be prepared for any changes. Strategic plans at Biomin enable the company to evaluate its resources, budget allocations and effective determination of plans that maximizes ROI (return on investments).

For strategy formulation to be effective at Biomin; they must consider the following six steps:

i. Defining the organisation-Biomin South Africa
ii. Defining its strategic mission
iii. Defining its strategic objectives
iv. Defining competitive strategy
v. Implementation of strategies
vi. Evaluating the company's progress

4.3. Organisation Strategy

The first step towards strategy formulation is defining the Biomin as a company, understanding the needs of its customers, and coming up with solutions towards satisfying them. This is important as it will increase and add value to its customers. Biomin can define itself through (Dayan, Heisig, and Matos, 2017).

- End benefit

Biomin objectives are to offer a sustainable solution on livestock and agriculture to its customers, and their customers are concerned with the benefits that they get at Biomin and not the company’s features. Therefore, Biomin needs to provide details and information necessary for the products they offer to its customers. Biomin offers solutions to livestock and will be able to answer the question that customers ask on their products, thus influencing its customers.

- Target market

Biomin identifying their target market will help them work towards success. They will be able to focus on the target market's demographic segmentation and psychographic indicators, which is essential when meeting the customer’s needs.

- Technology

Biomin has focused on the development and implementation of technologies in agriculture, such as the launching of new mycotoxin detection service. Therefore, Biomin needs to adapt to marketplace changes quickly. This will enable them to develop corporate goals.

4.3.1. Strategic Mission

During strategy formulation, an organisation needs to have a strategic mission. Biomin has a clear mission that provides the organisation with guidance through its values and business nature. With the mission, they can state their position in the market marketplace. Through the Biomin vision, they can stipulate future goals and plans (Mohamed, Nusari, Ameen, Raju, and Bhaumik, 2019).

4.3.2. Strategic Objectives

This is the third step of the strategy formulation process for an organisation. An organisation is required to identify performance targets that will enable achieves Biomin objectives. Objectives include the market position to competition, market share, production of goods and services, improving customer service, corporate expansion, technology advancement, and sales increase. For strategy objectives to be achieved, all employees and stakeholders must be involved (Bolisani, and Bratianu, 2018).

4.3.3. Marketing objectives

The objectives of the marketing plan as the way forward for Biomin relates closely to the company's overall mission, vision, strategies, and structures.

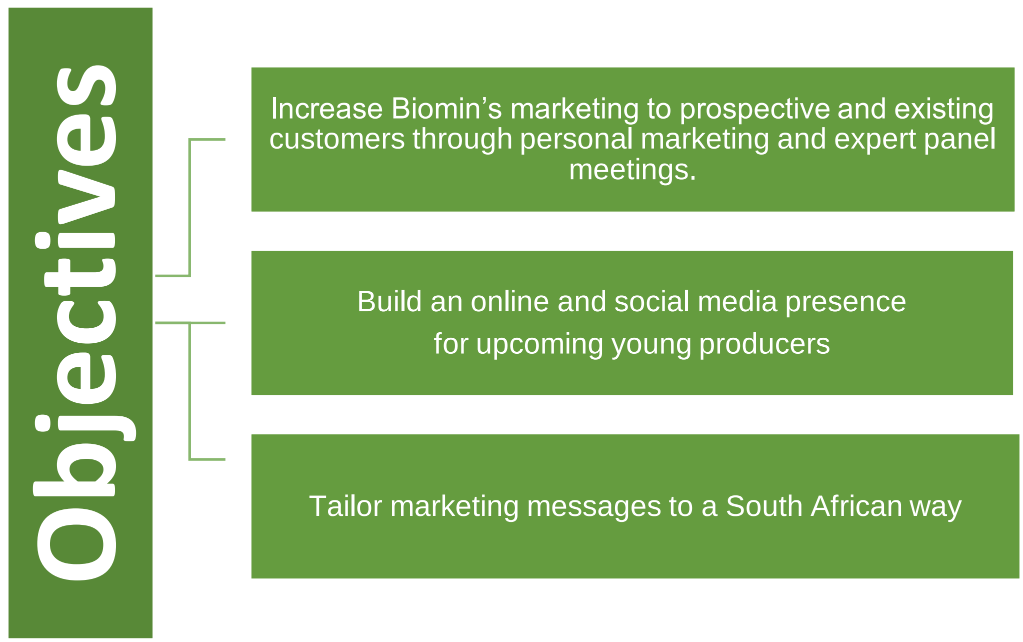


Figure 32: Marketing Objectives

4.3.4. Competitive Strategy

Biomin can determine its competitive strategy through: (Parast, 2017).

- Assessing its marketplace to be able to maintain its competitive position
- Developing proactive responses to the marketplaces
- Identifying Biomin's resources and how they will be used and allocated to meet customer needs.

Three factors must be considered for a competitive strategy to be effective.

The industry:

Factors to be considered when evaluating the whole sector include.

- Market size
- Past and potential market growth
- Competitive profits
- New market entrants
- Threats in the industry.

Competition

Biomin must consider its competitors to be able to understand its marketplace they must consider strengths and weaknesses brought about by competition.

Strength and weaknesses

To develop a competitive strategy, Biomin needs to consider its SWOT analysis. It will be able to maximize and leverage its strengths. On its weaknesses, it will be able to look for options or look for solutions to work on its weaknesses (Phadermrod, Crowder and Wills, 2019).

Executives using SWOT analysis compare internal strengths and weaknesses with external opportunities and threats to generate ideas about how their firm might become more successful. Ideas that allow a firm to leverage its strengths, steer clear of or resolve its weaknesses, capitalize on opportunities, and protect itself against threats are particularly helpful.

4.3.5. Strategy Implementation

This is the process of turning strategies and plans into actions to accomplish strategic goals and objectives. Strategy implementation focuses on the translation of strategy to operational procedures and management of employees. Strategies formulated at different levels are implemented to achieve a company's objectives. Strategy implementation at Biomin will be achieved through different themes (Jackson, et al. 2017:127).

- Corporate governance

- Strategic leadership
- Organisation structure
- Strategic and management control systems
- Organisation culture

4.3.6. Corporate Governance

Corporate governance is essential in strategy implementation as it helps in aligning shareholders' interests. Corporate governance governs practices in the business through rules and regulations to ensure fair competition and that Biomin upholds ethical behaviours during strategy implementation. South Africa provides regulatory frameworks that provide legislation to Biomin. Corporate governance ensures that ethics in strategy are supported; this helps in the creation and implementation of the strategy. Corporate governance and ethics are essential in Biomin South Africa as shareholders' values are protected, profitability pressures and sustainability; legislative requirement ensures business continuity (Firmansyah, and Devi, 2017).

4.3.7. Strategic Leadership

This is the ability of strong leadership to derive the change in strategy. Senior management is enabled to underpin the company’s vision, mission, and values during strategy implementation. Strategic leadership is essential in strategic implementation as it assigns the executive team to oversee strategic implementation roles. This is important, as it will influence ethical positions, behaviours, and actions (Kheyley, and Ragui, 2018).

Within the Biomin South Africa context, regional businesses and business units geographically dispersed their leadership on business units’ influences behaviours, performances, and organisational culture.

4.3.8. Organisation Structures

Organisation structure is the total sum of ways that divides labour tasks and achieves coordination amongst them. Organisational structure is hierarchical from the senior management to the subordinates. During strategy implementation, it starts from the top downwards. In Biomin South Africa, organisation structures are essential as they impact cost structures directly, thus rebasing profit sustainability in strategy implementation (Matseshe, et al. 2017:212).

4.3.9. Strategic Management Control Systems

These are mechanisms that evaluate appropriateness in organisation strategies and their contribution to the external environment and competitive advantage. Strategic management control systems assess their focus on strategy implementation by having responsible budgets for strategy implementation, strategy implementation procedures, information management, and operating systems that monitor strategy implementation.

Control systems provide support for strategy implementation by monitoring results in business and employee behaviours through policies and procedures, rewards, resources, IT systems and incentive systems that motivate and support behaviour required in meeting strategy implementation. Control operations are managed through (Da Costa Ferreira, 2017).

- Short term objectives
- Functional tactics in marketing, finance, operations, and human resources
- Balances score cards methodology.
- Business process re-engineering
- Continuous improvements. This is achieved through total quality management.

4.3.10. Organisation Culture

There is a strong relationship that exists between culture and strategic management through corporate performance management. Organisational culture is intangible and provides determination on how organisations present themselves, do business, and treat people (managers, shareholders, employees). Through the organisations' shared values, behaviours, and visions, they help support strategy implementation (Genc, 2017).

Biomin South Africa has an influential organisational culture that is rooted in operations performance that helps in strategy implementation.

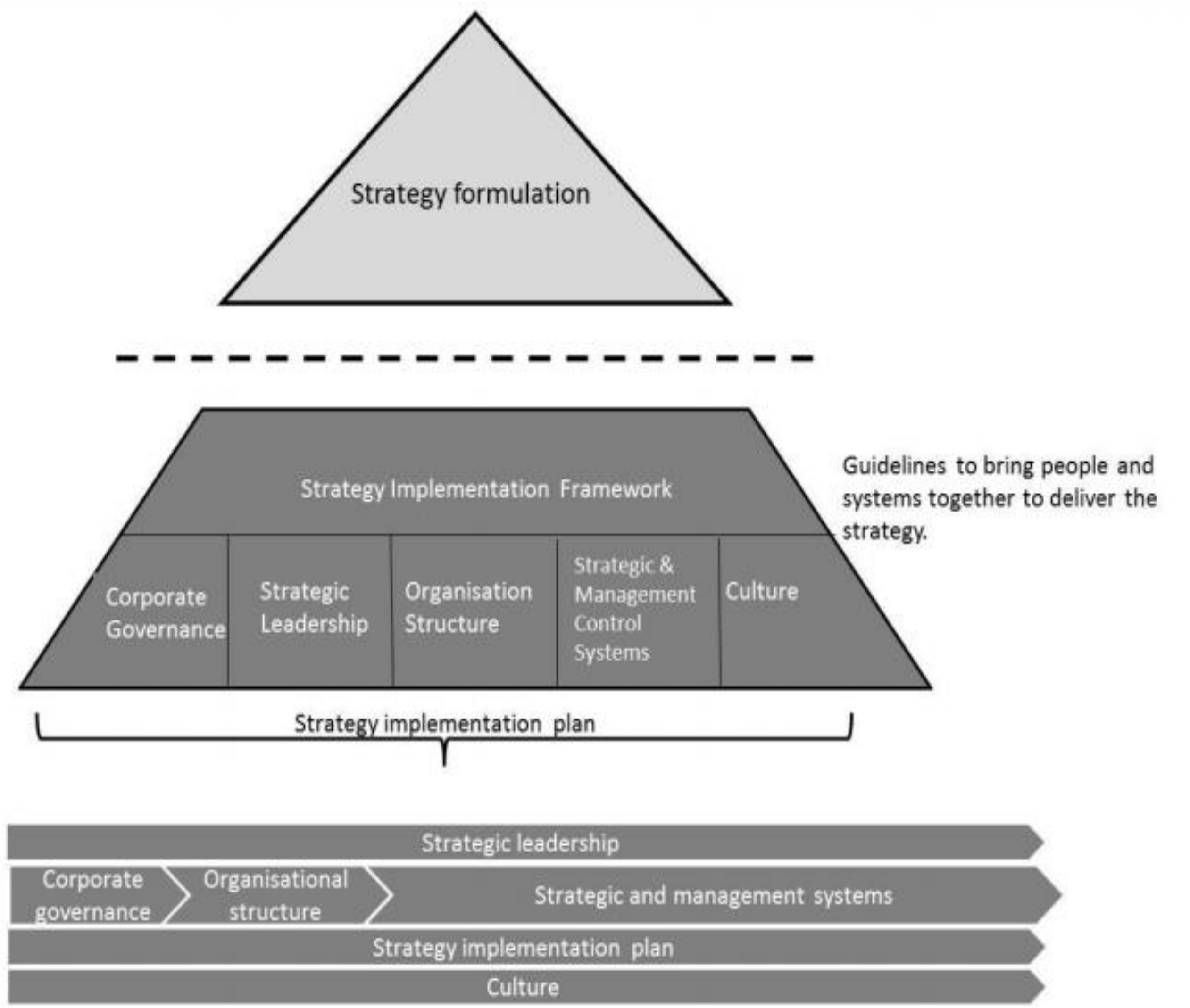


Figure 33: Proposed structure for Biomin South Africa

4.3.11. Conclusion

From the report, strategy formulation includes defining the organisation, strategic mission: objectives, and competitive strategy. Defining the organisation helps in identifying the organisation through its end benefits, targets, and technology. Every organisation has stipulated its organisational missions and objectives that help as a guide towards strategy formulation. Competitive strategy is evaluated through the industry (market size, new market entries, profit competition), strengths and weaknesses, and competition.

Strategy implementation involves corporate governance, organisation structures, cultures, strategic leadership, and control systems. Corporate governance is the main cornerstone for strategy implementation. Strategic leadership through senior management help in strategy implementation. To have a successful strategy implementation, there is a need to have an excellent organisational culture. Control systems provide management systems such as balanced scorecards methodology, continuous improvement, among others, in the report that help in strategy implementation. Translation of strategy formulation objectives to strategy implementation plans creates successful business operations.

4.4. Biomin's past strategic plan

Biomin's last strategic plan was to enter the South African market and ultimately the sub-Saharan countries. According to (Thompson et al. 2017:244) it was a strategy for international growth. The reason for an organisation to enter international markets are as follows:

- To gain access to new customers
- To achieve lower costs through economies of scale, experience, and increased purchasing power.
- To further exploit its core competencies.
- To gain access to resources and capabilities located in international markets.
- To spread its business risk across a wider market base.

Biomin is an international company with a footprint in more than 140 countries. Biomin's holding company saw a big opportunity in the African market. Biomin had no footprint in the sub-Saharan countries but do have one in the Northern African countries. The decision was taken to create a business unit in South Africa to service the sub-Saharan countries from South Africa. Biomin South Africa was given the task to create the Biomin brand in South Africa and be profitable within three years. Biomin gained valuable clients in South Africa, which is the gateway to the rest of Africa. Most of the companies in South Africa like Meadow feeds, Afgri feeds and Nutri feeds has feed milling capabilities in Africa. To penetrate the African market, it was imperative to first develop the South African market to establish the brand. After establishing the brand with companies like Meadow Feeds, Afgri feeds and Nutri feeds it will become much easier to effectively penetrate the Sub-Saharan countries through the networks already created by these companies. It is much easier and cost-effective to work with these feed millers to gain access to the markets, rather have capital expenditure to develop these markets.

4.5. Biomin's future strategic plan.

DSM Nutritional Products purchased Erber Group in June 2020. The divisions in Erber Group that they bought is Biomin Animal Nutrition and Romer Labs. DSM is a company that specialises in vitamins, minerals and trace elements that is essential for the farming community. All animal feed produced in the world must have a premix pack, that includes vitamins minerals and trace elements. DSM does not have the products and capabilities of mycotoxin deactivation. It fits perfectly into their strategic plan to be the leaders of a complete feeding solution to the industry. They are also one of the world's largest producers of vitamin A, D and E that is essential for feed production. By combining Biomin and DSM, they can produce a macro pack (minerals, vitamins, trace elements and feed additives like mycofix and probiotics) to be an easy solution for producers and feed millers around the world. At this stage, a feed miller needs to purchase a premix pack (minerals and vitamins) and add mycotoxin binders and other additives by hand. This is a time-consuming process and can lead to human error that can be devastating for a specific animal species.

Horizontal mergers and acquisition strategies

According to (Thompson, et al., 2017:213) combining the operations of two companies, via merger or acquisition, is an attractive strategic option for strengthening the resulting company's competitiveness and opening avenues or new market opportunity. Increasing a company's horisontal scope can strengthen its business and increase its profitability in five ways: (1) by improving the efficiency of its operations; (2) by heightening its product differentiation; (3) by reducing market rivalry; (4) by increasing the company's bargaining power over suppliers and buyers; and (5) by enhancing its flexibility and dynamic capabilities.

To achieve these benefits, horisontal merger and acquisition strategies typically are generally aimed at any of five outcomes:

- Increasing the company's scale of operations and market share
- Expanding a company's geographic coverage.
- Extending the company's business into new product categories
- Gaining quick access to new technologies or complementary resources and capabilities.
- Leading the convergence of industries whose boundaries are being blurred by changing technologies and new market opportunities.

DSM gained a huge advantage in the market by purchasing Biomin. They increased their company's scale of operations and market share. One of Biomin's products is also premixes. Biomin just opened a brand new, state-of-the-art premix facility in Haag, Austria. Operations in the premix business will be combined to increase the production capabilities of DSM. Biomin that works with the feed additives will remain a separate entity with their headquarters still in Austria. By combining the research facilities will enable Biomin and DSM to cut costs and increase the potential research into different areas that uses the same technologies. DSM is a world leader in producing enzymes. Biomin has just started the process of producing enzymes. It could increase Biomin's capabilities to produce enzymes for mycotoxins much faster and efficient.

Biomin is operating in more than 140 countries. Both Biomin and DSM will expand their geographic coverage through this acquisition. In South Africa, Biomin will have access to DSM's clients that are not currently buying from them. It will give Biomin access to new potential clients that previously purchased their feed additives from Alltech specifically.

By combining DSM and Biomin's products, they will be able to produce macro packs that consist of vitamins, minerals, trace elements, toxin binders and probiotics. These new product categories will enable them to enter new market segments. It is a nuisance for producers that do not have mixing capabilities to mix all the required products themselves. Combining their products will greatly improve the quality of the mixed finished feed. It will eliminate the possibility of feed millers and producers making a human error by wrongfully mixing the products in the wrong quantities. It will increase the quality of finished feed for producers and feed millers.

Biomin can also have the capability in South Africa to mix their products locally through the facilities of DSM. Currently, 100% of all products are imported. That increases transport costs, import taxes, and exchange rate fluctuations. 30% to 50% ingredients of Biomin's mycotoxin products can be potentially sourced in South Africa. That will decrease the risk of exchange rate differences if only the concentrated ingredients are imported at lower levels. It will also possibly decrease the cost price of their products when they are capable of mixing their products locally through DSM. Feed millers also requested smaller packaging of Biomin's products. The current package size is a 25 Kg carton box. Feed millers normally only mix in 1 kg of mycotoxin binders into a ton of feed. DSM will be capable to repackage Biomin's products into smaller packages that will greatly simplify the worker of the feed millers.

Biomin and DSM can gain valuable new technologies through this acquisition. DSM can complement Biomin by helping with the development of enzyme production to eliminate mycotoxins. Biomin currently has Fumzyme that eliminates Fumonisins. In February 2021 Biomin will launch Zenzyme that eliminates Zearelone. Deoxyvilanenol is one of the most dangerous mycotoxins that Biomin struggles to create a heat-stable enzyme. DSM might help Biomin in developing the product.

DSM also acquired Romer Labs, that is an accredited laboratory that specialises in detecting allergens for the human market. They can also detect mycotoxins in animal feed. Biomin's future strategy in South Africa should also include a focused differentiation strategy. According to (Thompson, et al.,2017:178) a focused strategy keyed to differentiation aims at securing a competitive advantage with a product offering carefully designed to appeal to the unique preferences and needs for a narrow, well-defined group of buyers (as opposed to a broad differentiation strategy aimed at many buyer groups and market segments). Successful use of a focused differentiation strategy depends on the existence of a buyer segment that is looking for special product attributes or seller capabilities and of an organisation's ability to stand apart from rivals competing in the same target market niche.

Biomin is the world leader in the deactivation of mycotoxins. Years of research and development has created a niche product that no competitor can compete against. No competitor in the world has scientific proof that their product can deactivate Fumonisins, Deoxyvilanenol, and Zearalenone. Biomin is also the only company in the world that has EU registration for their efficacy at deactivating mycotoxins. That gives Biomin a competitive edge in the market that no competitor can compete against. Biomin's range of Mycofix is an expensive product. Thus, Biomin is a price maker.

By combining the products of DSM and Biomin to create a macro pack, will enable them to charge a premium price for their products. The combination of the products will further create a void between Biomin and their rivals. The USP will also further develop Biomin's past strategic plan to enter the Sub-Saharan African countries. Africa has low technological capabilities. Through the combination of products, Biomin and DSM can further penetrate the African market by creating a macro pack that is convenient to use for producers in Africa with low technological capabilities.

Irvine's Africa Poultry (Pty) Ltd currently a client of Biomin. They have a large market segment in Zambia, Tanzania, Zimbabwe, Mozambique, and Botswana. This company has well-established distribution networks in this African country. Biomin can take advantage of Irvine'ss by supplying them in conjunction with DSM with macro packs for the African market. This will also help Irvines to simplify their operations. At this stage, they also buy and distribute only micro packs and feed additives from Biomin. By combining the products into a macro pack will simplify its operations in Africa.

A good tool that management can use in the transformation of Biomin due to the acquisition by DSM is John Kotter's 8-step change model.

According to Kotter (2007:99) can the 8-step change model help a company to overcome the resistance to change. It can be done by following the 8-step change model:

1. Establishing a sense of urgency.
   The staff of Biomin need to realise that change is inevitable. The purchase by DSM will affect how Biomin will operate in the future. Management needs to develop a

sense of urgency around the need for change. Kotter suggests that 75% of management needs to “buy into” the change.

2. Form a powerful guiding coalition.

   Biomin’s management needs to bring a coalition or team of influential people whose power comes from a variety of sources, including job titles, status, and expertise. Once a coalition is formed, a sense of urgency can be built for change.

3. Creating a vision.

   Biomin needs to create a vision to help to create the change effort. They need a strategy to achieve those visions.

4. Communicating the vision

   Biomin needs to use any possible vehicle to communicate the new vision and strategies. New behaviours need to be taught by management and coalition by example.

5. Empowering others to act on the vision.

   Biomin’s management needs to get rid of all obstacles to change. Structures and systems that undermine the vision need to be changed. Removing barriers such as inefficient processes and hierarchies provides the freedom necessary to work across silos and generate real impact.

6. Planning for and creating short-term wins.

   Biomins management needs to plan for visible improvements. These improvements need to be recognised and rewarded.

7. Consolidating improvements and producing still more change.

   Biomin needs to use increased credibility to change systems, structures and policies that do not fit in the vision. If needed, new employees need to be hired that can implement the vision. The process can be reinvigorated by creating new projects, themes and change agents. Management needs to press harder after the first success. They need to be relentless with initiating change after change until the vision is a reality.

8. Institutionalising new approaches.

Articulate the connections between the new behaviours and organisational success, making sure they continue until they become strong enough to replace old habits.

4.6. Marketing Plan the way forward

The marketing plan acts as a road map to guide the organisation to a more focused and realistic strategy as the way forward (Bothma, 2011:45). The marketing plan also acts as a tool for planning and implementation. Marketing planning involves designing activities relating to marketing objectives and the changing marketing environment and forms the basis for all marketing strategies and decisions (Lamb *et al.*, 2015:499).

4.6.1. Background: Brand tracking SA

In February and March 2020, a brand tracking survey was done amongst clients and non-clients. Quantitative research was done via telephonic interviews. The sample size consisted of 47 Biomin clients and 33 non-clients. The pool of people that were initially contacted were nearly 300 but only 80 participated. The results were published in April 2020.

The following subjects were covered in the interview:

- Brand awareness (top-of-mind, unprompted, prompted)
- Suppliers from which animal nutrition products/ feed additives were bought within 12 months
- Statements regarding brand equity, image, and performance (per respondent for Biomin and one competitor – Alltech or Kemin)
- Overall satisfaction and willingness to recommend (per respondent for Biomin and one competitor – Alltech or Kemin)

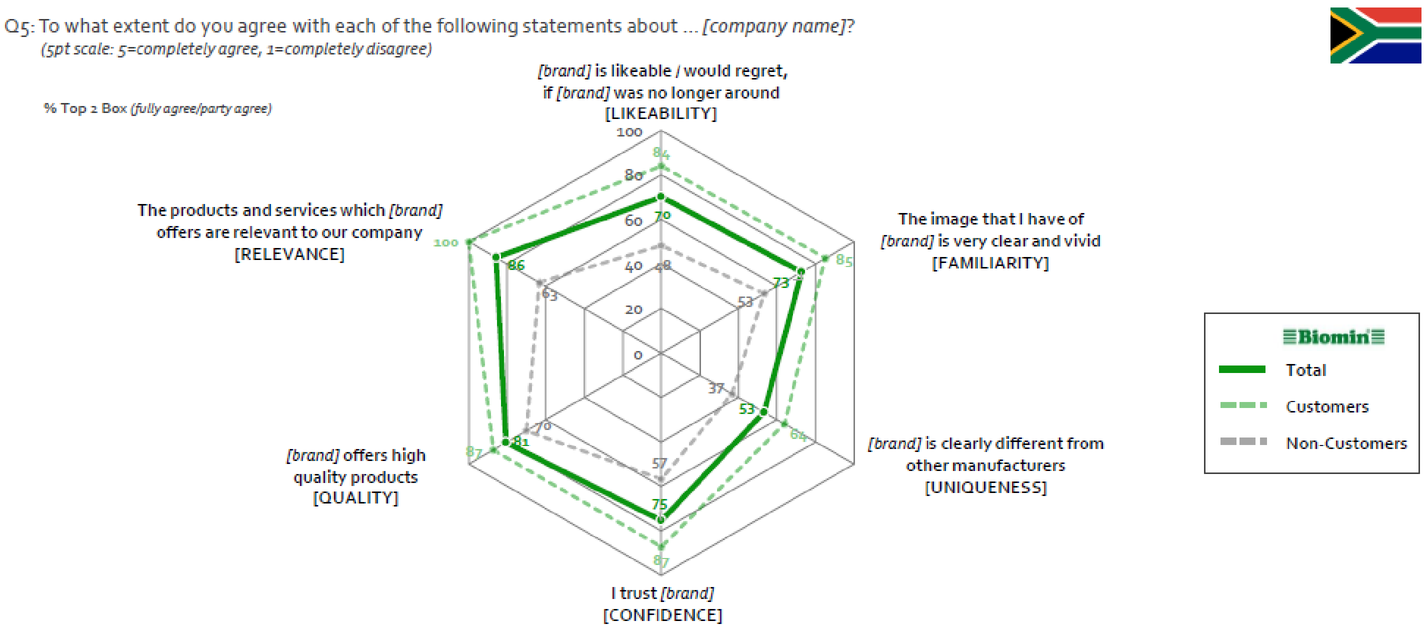


Figure 34: Brand tracking survey

There is a clear gap to build their customer base from the non-customers who buy from their rivals. This gap can be filled with a targeted, specific marketing plan, custom made for the specific market and country. Again, this is a way of customising the masses. You take the core message and tweak it to suit the specific segment you are targeting.

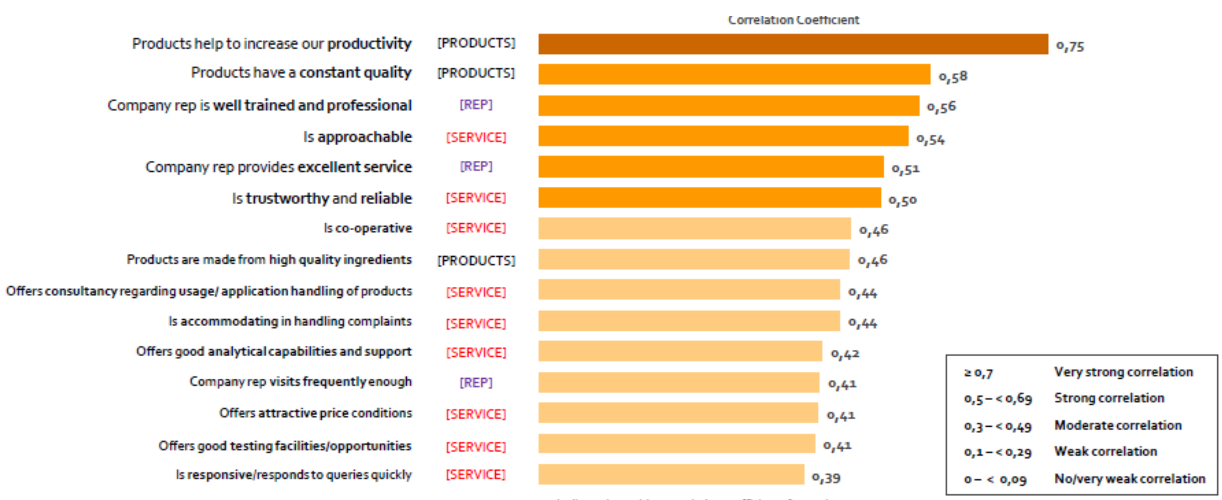


Figure 35: Gap to build a customer base from the non-customers

There is an unmined pool of potential customers who supports the opposition companies that can be targeted and reached with a direct, digital marketing campaign.

Non-customers indicated in the Brand Survey (2020):

- 67% are unaware of the research
- 67% are not sure about Biomin's reputation
- 53% do not find the company approachable
- 63% struggles with trust and relying on the company.
- Despite a bigger number of Biomin customers who participated it was still indicated that they lag behind Kemin when it comes to training and only complained about the low response to customer queries and complaints.
- Only 38% of Biomin customers are satisfied by the website.
- There is a definite gap that potential customers are not aware of the scale of research Biomin conducts, only 30% are happy with the consultancy by Biomin and only 47% of the participants knew that Biomin products are natural.

4.6.2. Corporate Design and Corporate Image

Biomin has a well-developed style guide whereby they protect their brand and image with clear instructions on how to use and incorporate the brand and promote the image. See appendix 1.

The use of their logo, Pantone colours, use of pictures, fonts, font sizes etc. are described in detail to ensure clear quality control and uniformity across all continents.

Flexible choices can help Biomin in specific countries to custom made their message to the local market (while still giving the Biomin overall message). Flexibility in visuals, packaging and advertising mediums should be considered. This will give a homely feeling that is familiar and relatable by the customer.

4.6.3. Establishing a market segment in South Africa

A company's marketing strategy should be closely aligned with the vision and mission of the company. (Venter, 2014). Biomin prides itself in 100% natural products and world-class research and development. To successfully market products, a business needs to know in which market segment they are competing in. The needs of your customers should be taken into consideration but in a certain market you must promote and market products they might not be aware of or yet realise they need them.

Biomin has followed a differentiation strategy following their competitive advantage with a secret, key ingredient that makes their additives 100% natural. This is blending in with the textbook definition of differentiation: “…identifying an attribute or characteristic that makes your product or service unique is the driving factor in a differentiation strategy”. (Wright: 1998).

This strategy targets a specific segment of a market, but rather than offering the lowest prices to the buyers in that market, a business offers something unique that their rivals are not offering or cannot offer. The differentiation strategy involves creating unique products that are different from any other offerings. When a company develops a unique product that consumers want, it can charge more for the product. This means Biomin who use the differentiation strategy sells its products for more than the competitors. By developing differentiated products Biomin invests in research and development.

Biomin is operating internationally and in developed countries, their products and safety accreditation is promoting the brand. In South Africa, the use of antibiotics in treating animals, are not regulated that strictly. AFMA (Animal Feed Manufacturers Association) is the regulatory body that oversees the industry. The South African and African region is developing and third world countries that are more focused on getting healing results for their animals than assessing the safety of the treatment.

This has brought Biomin to a point where they must find ways to be innovative and get their products to their market that might not be as sophisticated or educated as their Europe and USA peers. At this stage, their products are aimed at a niche market that narrows their client base and footprint.

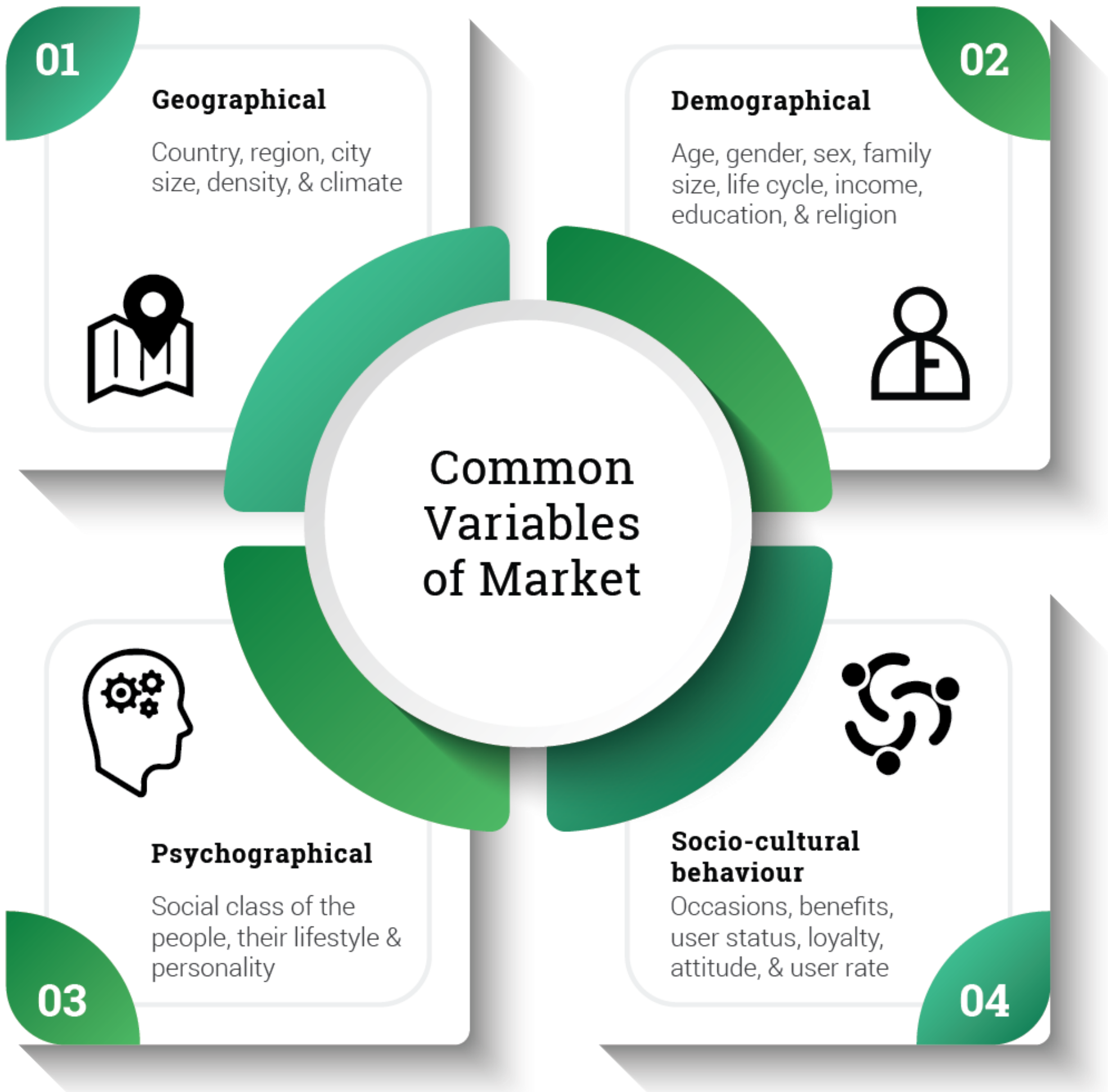


Figure 36: Common variables of market

The time is ripe for a focused get-to-know-your-customers campaign. A project that aims to look closer look at who their customers are. This will also play a huge role in the way you reach your customers and the way you engage with them in the future. If Biomin wants their message to hit the right spot they need to know how and which platforms you need to communicate and engage.

A short survey focused on only South African customers can assist Biomin to get the information that might enhance their relationship marketing strategy.

Relationship marketing must have a good solid database and this proposed survey should be used for data harvesting and getting to know your customers.

Marketing Environment

The marketing environment of Biomin will make out the following:

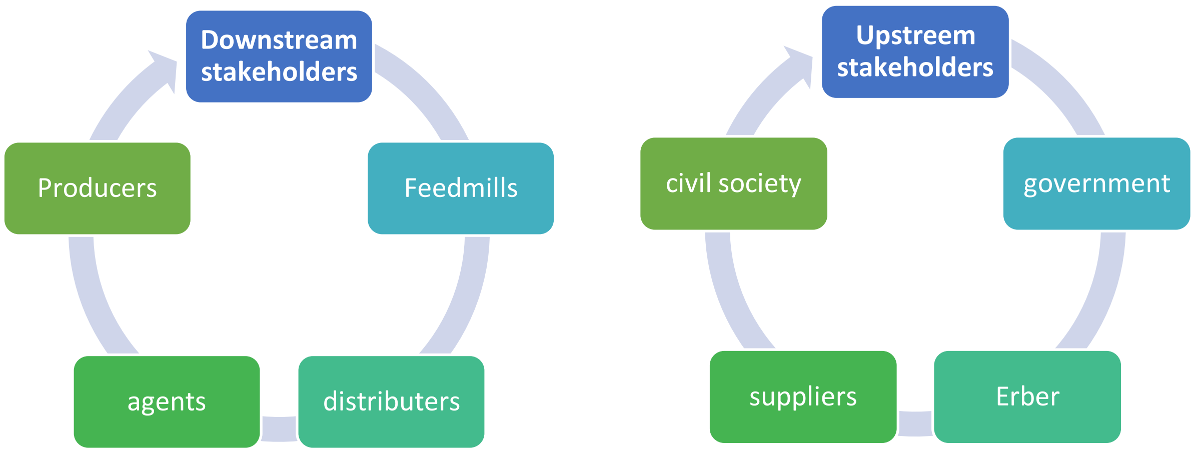


Figure 37: Marketing Environment

These different streams of stakeholders will need different types of marketing, respectively. Therefore, Biomin needs to differentiate between the two types.

4.6.4. Custom made – one size does not fit all

Biomin has already put measures in place to bring different marketing strategies to different countries. A good example of these different approaches is: In North Africa, Biomin is dealing with Muslim customers and must be extra sensitive not to offend them or their religion. All branding containing images of pigs and women were removed and adapted to be respectful to the customers' beliefs.

In Africa, Biomin acknowledges the percentage of French speakers and has adapted their language strategy to communicate better and more efficient.

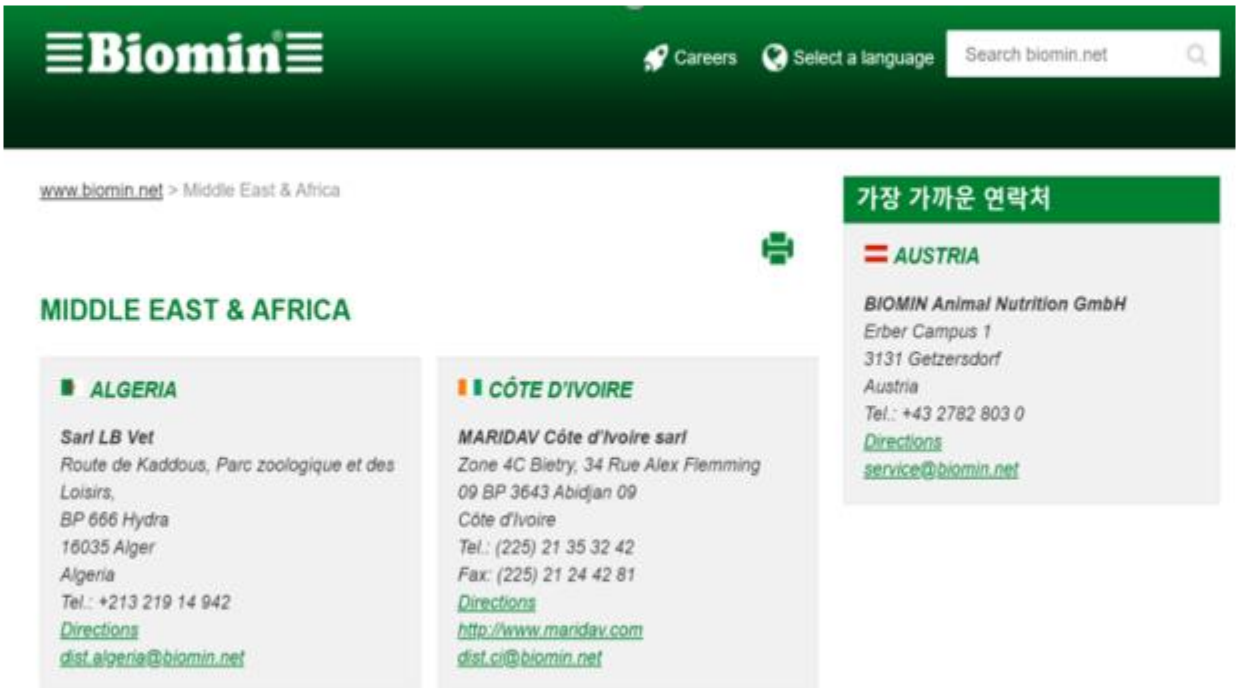


Figure 38: Example of Biomin's Middle East and Africa webpage (Biomin, 2010)

Product, price, people, place, and promotion are already considered into the Biomin marketing plan but the focus on the South African market and their needs lack. Currently, the top three countries in Africa where Biomin operates are South Africa, Nigeria, and Egypt.

More direct electronic communication can be to the advantage of the company. Customising the masses means you take the already developed plan and info and add a personal angle to reach people's hearts as well. The message can still be produced in bulk while it has personal significance to the customer.

Organisations must form a bond with their customers to attract and retain customers, to ensure they have conducive customer experience and to persuade them to spend more. 6 customer relationships are defined: Personal- and dedicated personal assistance, self-service, automated service, advisory service, communities and cocreation (Ungerer et al., 2016:252; Satell, 2017:89). 132 The customer relationship element must be defined by recognising the types of relationship in each customer segment, that different customers require different types of relationships, how relationships differ and how relationships can be optimised for efficiency and experience (Ungerer et al., 2016:252).

4.7. Relationship marketing

Social media needs some "biotics" to build relationship marketing

The relationship marketing philosophy emphasises forging a long-term partnership with the customer (Lamb *et al*., 2015:15). This is done by building long-term relationships with customers and offering value and providing continuous satisfaction, which encourages repeated sales and referrals to potential new customers, which all lead to increased sales, market share and profits. This also reduces costs because it is less expensive to serve existing customers than to attract new ones.

The South African operations of Biomin has a Facebook page with under 200 followers. The mere sharing of international data and information from their main Facebook page yields little results. The timing of posts during the day needs better scheduling and the response time to messages needs improvement.

The page gives the impression that it was added as an after-thought and no local or self-generated content are seen. The page missed opportunities to connect on a personal level with clients in the local market. Social media, as well as a targeted local SA domain, can build the brand showcasing local experts and achievements to bring the Biomin message "closer to home".

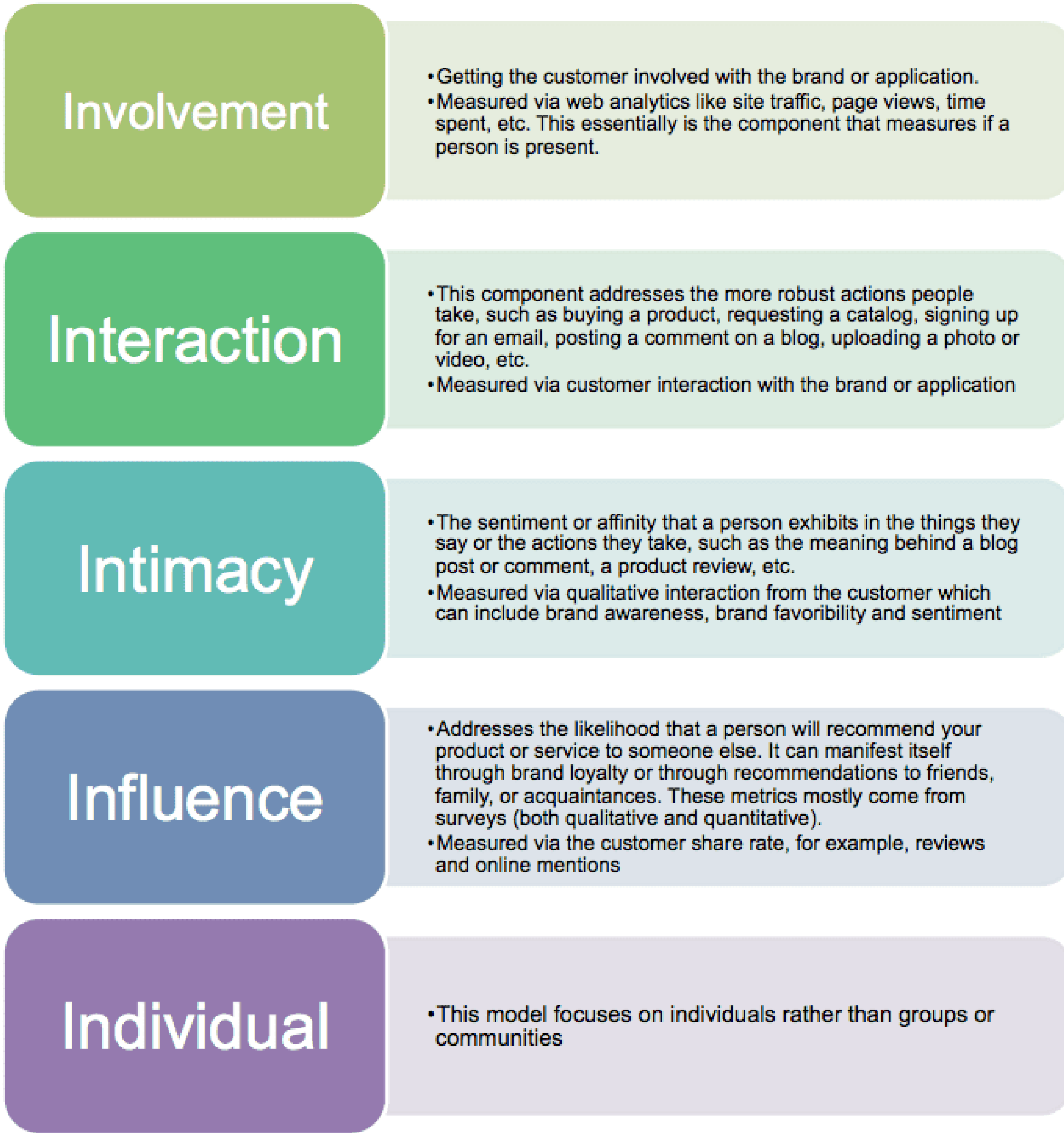


Figure 39: Relationship marketing

4.7.1. The effective use of the internet to target the SA market:

From the research and the social media footprint, Biomin customers and non-customers in South Africa are not satisfied with the offerings on the website.

For South Africans working within the.co.za domain; the .net domain might seem confusing or even not relevant for the information they might be browsing for.

A total of 83% participants indicated that they make use of an internet search when they are looking for information in the animal feed industry. This might create a platform to help build the personal relationship and sort out the queries about Biomin's approachability and the direct contact from sales representatives – who are also experts that can empower clients with information and adding value to their farming businesses. This platform can be used to share local, relevant information and to contact sales managers directly via web enquiries. This will create two-way communication between sales managers and customers and non-customers.

This can also be a platform whereby Biomin South Africa can showcase their events, put faces to the names by sharing pictures and expert advice. Almost all Biomin customers and non-customers have access to electronic devices from where they can access information about the South African Operations.

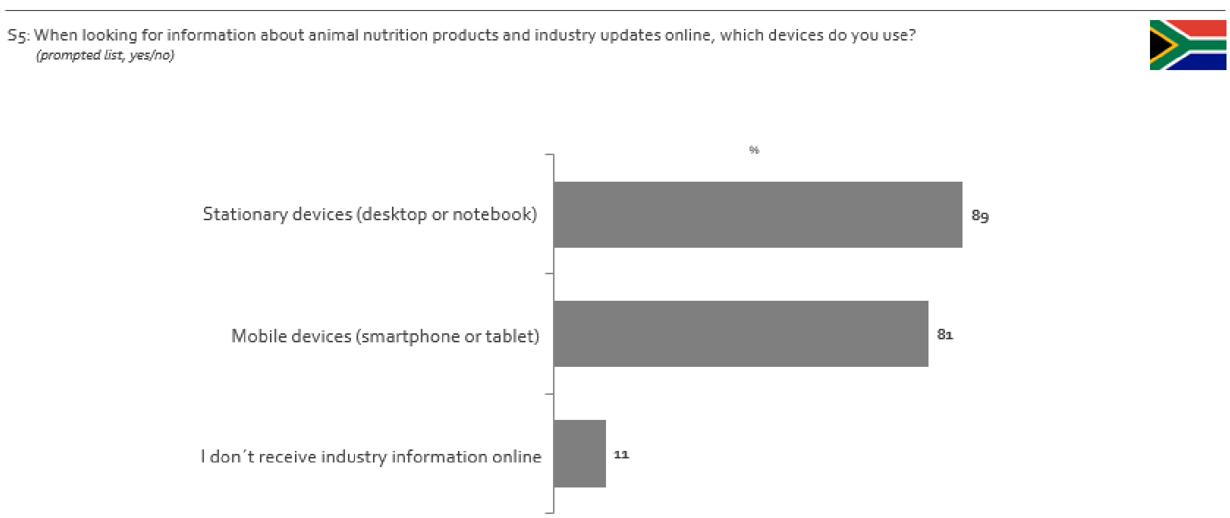
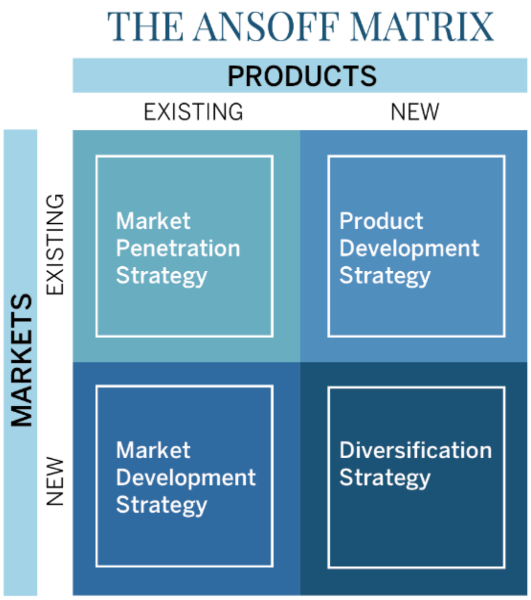


Figure 40: Usage of devices

SOSTAC focuses on the six most important elements of any business. SOSTAC is an acronym for these six elements:

- Situation analysis: Ask what the current state of the business is.
- Objective: Helps list an overview of goals for the business.
- Strategy: Helps provide the big picture plan in achieving the business goals
- Tactics: Helps identify smaller details and steps required to accomplish the plan.

- Action: Helps assign responsibilities and deadlines for a certain task.
- Control: Tracking the progress of the executing plan is important.



4.8. Ansoff matrix

The Ansoff matrix enables companies to identify opportunities and how to exploit them. It allows a company to match existing or new products with markets to identify which type of marketing approach to use (Lamb *et al.*, 2015:506). This model focuses on growth and is, therefore, an extremely useful marketing model to evaluate opportunities for companies to increase their sales through showing alternative combinations for new markets such as customer segments and geographical locations against products and services.

	Present products	**New products**
Present market	Increase (digital) advertising budget	Expert panel meetings
Newmarket	Promote and invest more in Africa market, with small changes to packaging and offering of products.	Long term strategy - Increasing sales by introducing new products into new markets.

Table 14: Ansoff matrix

4.8.1. Market penetration

A firm using the market penetration alternative wants to increase its market share among existing customers with its existing range of products, or slight modifications to them. This means improved marketing to existing target markets (Lamb *et al.*, 2015:506), and to grow market share, improve customer loyalty and customer value (Hanlon, 2013). Possible actions to follow include reducing the order interval/waiting period, increase the average order value or make the entire ordering process easier and more user friendly as orders mainly occur through website and electronic means.

4.8.2. Market development

Means attracting new customers to an existing product. Ideally also bringing in new buyers. (Lamb *et al.*, 2015:506) This could include (better) use of online channels to sell into new markets at lower costs or selling existing products to new market segments based on demographics and geography as elaborated on below and different types of customers (Hanlon, 2013). Identify new markets based on the following factors:

- **Demographics –** age, gender, and income
- **Geography –** where they are based – local, regional, national, international
- **Life stages –** recently retired
- **Lifestyle –** adventurous, market as a bucket list experience.

4.8.3. Product development

A product-development strategy entails the creation of new products for present markets (Lamb *et al.*, 2015:506) The web can also be used to add value to or extend existing products and services e.g. web-based CCF for JS (Hanlon, 2013).

Possible strategies for the 2 years and beyond after DSM accusation:

Current (Problem)	Possible strategy implementations
Biomin has a limited footprint in Africa.	Use current DSM distribution channels to grow
Need for smaller packaging of Biomin's products into Africa.	With a partnership with Irvine's poultry headed by Jodi van Irvine will assist with the distribution and market penetration of smaller packaged product.
Import cost and exchange rates	Possibility of manufacturing Bioimin's products in DSM's local manufacturing plant avoiding importing and fluctuating exchange rates.
The high cost of raw materials	Sourcing available raw materials in South Africa to eliminate the cost and save time. And to minimise the risk of safety stock. This will enable the company to carry stock JIT.
Producers do not have the necessary application tools to apply the correct Biomin doses.	Symbiotic partnerships with Dosing Solutions will assist in one company providing the tools while Biomin provides the soluble product for the application of Biomin's products.
Availability of local data and research lacking	Conduct local trails in partnerships with universities, showcasing the effectiveness of Biomin's products in local conditions.

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ADDENDUM A: Marketing proposal for Biomin

Biomin®

Our objective:

To help grow the brand and footprint of Biomin in Southern Africa with area-specific custom relationship marketing and promote the niche products despite prices being higher as those of competitors

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1. Business Summary

- Company Name
- Marketing Team
- Headquarters, Office Locations
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2. Business Initiatives

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3. Target Market

- Industry Name
- Buyer Persona(s)
- Competitive Analysis

4. Market Strategy

- Product
- Price
- Promotion
- People
- Process

5. Marketing Channels

Business Summary

Our Company

Biomin is a company headquartered in Vienna with offices all over the world. The South African headquarters is situated in Klerksdorp with mostly expert sales staff distributed over South Africa.

Their mission is:

We harness the power of science to support animal health and performance. By applying state-of-the-art and proprietary technology we deliver natural, sustainable, and profitable solutions to the feed and livestock industry. Naturally Ahead.

Biomin Marketing

Biomin’s marketing, advertising and communication are centralised in Europe at their headquarters in Vienna. The Office Manager in Klerksdorp, who is not a trained communication and marketing specialist took the responsibility to start a Facebook page for the local market segment. Customers are mainly feed millers and mega producers (farmers).

SWOT Analysis in Marketing and Communication

During the SWOT analysis on Biomin, European expertise is made available to and African market. Due to intensive research, patents and Rand/Euro exchange rates, these niche products are more expensive than local imitations that false claim to deliver the same results.

This SWOT analysis is compiled from company information and a brand tracking survey that was published in April 2020. There are many strengths but personal, relationship marketing seems lacking in the SA context. This is not due to reluctance from staff to operate and meet and engage with clients. The small staff component and the absence of an official communication/marketing person are contributing factors.

Strengths	• Good products with proven scientific research results. Natural products are safer for human consumption and safer for the animal. • European expertise for an African market. • Good quality products. • Strong feed miller partnerships • Sales managers put in efforts to engage personally with clients. • Well-designed vision and mission. • More than 85% of clients have access to technology and uses the internet for searches on advice. • Secret patented formula • A good relationship with veterinarian in all communities they operate.
Weaknesses	• Customers want more personal service and visits from sales managers. • No SA website with a local domain available. • Poor Social Media platforms. • One size fits all European marketing methods for African market. • High prices on niche products – in some categories not competitive. • Poor governance and regulation of animal feed industry in SA. • What we want to fix. What we want to strengthen. What we want to become more efficient at. • No local platforms to showcase local, own expertise. • No local recognisable advertising materials. • No place for locals to find local Questions and Answers No proper interactive presence eg. Experts giving advice, showing photos of local events etc.
Opportunities	• Due to Covid the landscape for all businesses has changed – more online communication is needed. • Social media platforms are cheap to advertise. • Stick to the rule of Local is Lekker – opportunity to expand the local brand. • As legislation is changing for the better with regards to animal feed regulations and the use of antibiotics, the need for 100% proven products will increase. • And an opportunity to showcase niche products and explain why some products are a VW and others are Bentleys… • Educate the SA market about the importance of compliance and European accreditation for safety and quality. • New product lines waiting to be launched.

	Pressure should be applied on all relevant role players in the South African market to ban the use of AGP's.
Threats	• An uneducated market segment who does not realise the harm antibiotics in animal health poses to the environment, consumer, and the animal. • Lower prices form other role-players in the market. • False advertising/claims by competitors and no proper legislation whereby the regulatory body to investigate claims • Covid-19 has impacted the SA economy and the Rand/Euro exchange rate.

Business Initiatives

Biomin has the vision to do everything 100% naturally while moving the company forward. To establish the vision of everything natural in South Africa, Biomin has a few tasks to inform and educate. As a large company, they can also have an impact on governance and can help ensure that local regulatory bodies have enforceable authority. In their quest to grow and distribute their safer products, marketing can assist in the following ways:

Initiative 1 – Make it more local

Description: Over the next few months, Biomin can start working with a host to establish and host their own local website with a typical .co.za-domain. This will help where producers and feed millers do online searches. This will assist that they land on the Biomin.co.za page as they are situated in South Africa. Chances are slim, in a general search, that a SA consumer will search and land on the Biomin.net homepage.

This can be finalised and launched during the September if the competition commission has approved the DSM transaction. This can be a dual special launch.

Looking at the more than 85% of existing clients and potential clients who use internet searches this will help to generate traffic to the webpage and assist in local, relevant news. The corporate image, as prescribed in the Corporate Identity is already established and this will not be a challenge to design and compact.

This can also be used to answer frequently asked Questions with ready Answers. This can be show board for events that are advertised or for post events. Event surveys, as well as direct emails to experts, can be incorporated here and clients will know that they get local applicable expert advise.

On this website, there can be links to social media platforms.

The website can portray the local news and local experts and make the search for relevant SA content shorter and more applicable.

Hosting of a website is a profession but this task, along with generating content can be outsourced to a skilled media/publishing house. Magazines like AgriSA and many others are outsourced to companies that are experts in the Agricultural sector and understand the target market.

From here you can have a great opportunity to get local customer leads to be followed up by salespeople.

Goal of the initiative is to help educate, build the brand and establish the brand name in the minds of clients. To help fulfil the need of participants in the Brand Tracking Survey for more direct contact with sales managers. This is a place to educate, inform and empower.

Metrics to measure success: You can measure the clicks per day, the time spent on the website, which content are read/accessed most, what is the top downloads etc.

Initiative 2 – Social Media

Description: The proper compilation of a social media platform can contribute to your marketing success. This is a cheap way of reaching the masses but you can still customise your messages to have an impact on your target audience. These are nice, affordable customer relationship marketing platforms. All these can be linked to the webpage and vice versa.

- Facebook – For an older market segment who like to read and browse and look at photo's etc.
- Twitter – More company-related news – a more serious platform to share to a more sophisticated market.
- Linkedin – A place to make your personal and brand mark amongst experts. This is a platform with more serious informative and academic style info.
- Instagram – This is your platform to showcase the fun side of your brand and to reach a younger target market (Young Farmers and New Farmers).

Goal of initiative: Enlarging your footprint, establishing your brand name, facilitate personal interaction via chats or comments.

Metrics to measure success: All these tools have built-in tools to measure engagements, likes, comments, time spent on the page etc.

Initiative 3 – Take the mountain to the hiker

Description: This is a short-term initiative.

1. The need for personal engagement can be fulfilled by a presence at trade shows like Nampo and trade events like SAPA, AFMA, WPSA, SA Feedlot, MPO, and SAPO should be visited and sponsored by both DSM and Biomin as a combined team.

During the Covid-19 pandemic, a virtual Nampo will be hosted. This is a way to show that you are at the forefront of change and development – not only in your products but also in the company.

Goal of initiative: Engage, show commitment to engage and reach out to producers, build the brand, showcase products.

Metrics to measure success: Ensure to get the database of participants and do a post-event survey. Ask the organisers for statistics of the event.

Initiative 4 – Re launch and re-brand

Should the competition commission approve the acquisition of Biomin by DSM, a rebranding strategy and relaunch should be arranged. This is an opportunity to bring new energy to the brand and again position it in the market they operate.

Rebranding can create anxiety and uncertainty, but it is in fact a good opportunity to revitalise your brand, rethink your position and overall strategy.

When a rebranding and relaunch take place those responsible for the project should ensure:

- Alignment of your brand elements across all channels to ensure they meet the needs and interests of your audience
- Improvement in internal communications as a result of brand education and awareness
- Elevated positioning amongst new and existing competitors in your industry
- New or renewed interest within your target audience
- Increased overall conversion opportunities and brand loyalty

Relaunching your brand is an adventure. It is not only a way to meet new goals but also stretch your creative muscles.

However, when you relaunch and rebrand the emotional impact on all role-players should be acknowledged and buy-in from all are important. When two entities combine there are typically two unique audiences left to communicate with. Sometimes this can require a rebrand or relaunch in a way that will appeal to both.

The messages should be positive and ensure cohesion instead of division. A brand is your reputation and your visibility, not your firm's name or its logo. It is more than just a new picture or colours.

Target Market

Industries

In 2020/20121, Biomin should be targeting the following industries who will assist to sell product and reach out to customers:

Veterinarians

A targeted approach to veterinarians should be undertaken. This can be formal or informal using empowering vets with knowledge on the Biomin product series. This can include a roadshow to campuses where vets are trained to plant the Biomin seed already at final year's level. A vet scholarship funded by Biomin can be a nice marketing tool to get your product name recognized.

Share knowledge by using Biomin experts to engage with tertiary institutions to share what the other 150 universities, who are already affiliated with Biomin, gain through the relationship.

Buyers

Feed Millers and companies

Feed Millers can engage in a symbiotic relationship with Biomin by giving them recognition on the SA webpage as an established partner. Use experts from the feed millers or companies, offering them space to write articles for the web. Launch competitions in partnership with each other.

Mega Farmers

Focus on personal service and interaction. Ensure they are serviced and use social media platforms and the website to showcase their successes (as their successes are basically Biomin's successes).

Market Strategy

Product

Product differentiation will open new segments in the market. The cheaper binders should be pushed into the market with a well thought through marketing strategy, not to cannibalise their current products. DSM and Biomin needs to create new products, like macro packs to tap into new market segments through all marketing channels. In February 2021 Biomin will launch a new product called Mycofix 5.Z that includes a pure enzyme called Zenzyme that will further their product portfolio. The local branch of DSM should also be present at this event to market their products to Biomin's clients and explain how the combination of their products will be easier and better for the clients.

Price

Bentley, Rolex and other exclusive niche markets are not shy to acknowledge that their products are expensive but worth it. There are prices in the Biomin series that are expensive, but it needs to be marketed in such a manner that the consumer understands exactly WHY they are paying more.

Promotion

- Website
- Online
- Trade shows Agri SA Nampo Harvest Day
- Direct marketing to vets feed millers etc.
- Niche agricultural magazines
- Blogs on social media
- Infographics that can be shared on all platforms
- Personalised videos of local experts sharing information
- Direct communication events where customers can communicate directly to experts – directly or via online sessions like Zoom, Video, Skype etc.
- Technical promotion via Youtube to younger producers.

People

This can be executed by an internal, appointed marketer and communication specialist or outsourced to a skilled and reputable communication and marketing company.

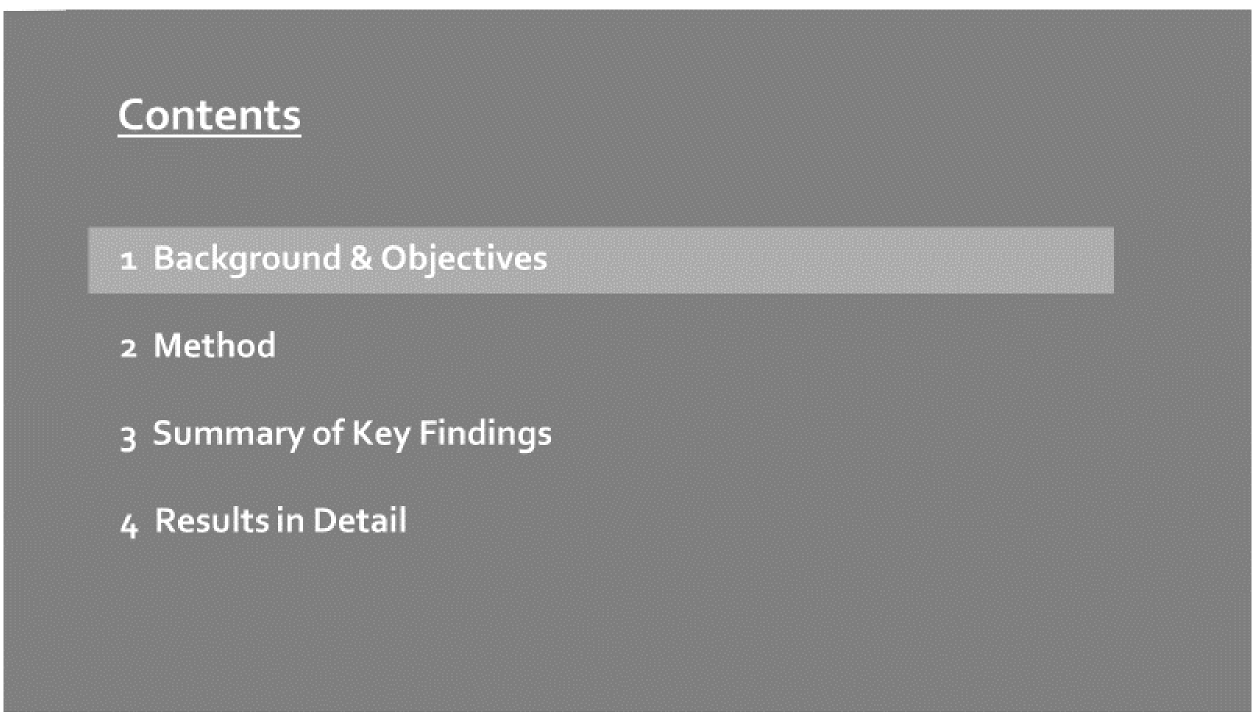
Process

The marketing and delivery of the product is ongoing processes. However, product launches can be held to promote new product lines.

Market Channels:

- Website
- Online
- Trade shows Agri SA Nampo Harvest Day
- Direct marketing to vets feed millers etc.
- Niche agricultural magazines
- Blogs on social media
- Infographics that can be shared on all platforms
- Personalised videos of local experts sharing information
- Direct communication events where customers can communicate directly to experts – directly or via online sessions like Zoom, Vidyo, Skype etc.
- Technical promotion via Youtube to younger producers.

ADDENDUM B: Biomin Global brand tracking study



Background & Objectives

TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

In 2013 Biomin have established a global brand tracking study among BIOMIN customers and non-customers. Since then, the study has been carried out in Germany (2014 and 2018), France (2014), US (2016), Brazil (2013, 2016 and 2019), China (2016) and India (2014 and 2019).

The key objectives of this study are

- *to determine the brand equity and image of and customer satisfaction with BIOMIN and its main competitors in the individual countries*
- *to identify areas for improving the BIOMIN performance regarding their products, services, company communication and representation in order to achieve superiority in performance for BIOMIN vs their main competitors.*

Based on the results of this tracking study, BIOMIN have initiated and implemented a range of activities to drive the performance and perception of the company in the different countries.

Now, BIOMIN extended their global brand tracking study to South Africa in order to determine the status of the perception of the BIOMIN brand in comparison to its main competitors there.

Contents

TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

Methodology

The following methodology was applied in order to be able to compare the results of this study with the results of other countries:

Data Collection Method	**Quantitative study;** the interviews were conducted as **telephone interviews (CATI)**
Target Group	The following sources were used to recruit the participants in this project: 1/ An **address list** of manufacturers of animal nutrition products, feed additives and pre-mixes **provided by BIOMIN** which included ca. 220 BIOMIN customers and 70 of BIOMIN non-customers. 2/ **Local directories of manufacturers of animal nutrition products, feed additives and pre-mixes** for recruitment of additional BIOMIN non-customers. The interviews were conducted with company owners/ associates who are in charge of purchasing animal feed products, feed additives or pre-mixes or who have an influence on the purchasing decision of these products.
Sample Size	**n=80**, with n=47 BIOMIN customers and n=33 non-customers
Questionnaire	The following subjects were covered in the interview: - **Brand awareness** (top-of-mind, unprompted, prompted) - **Suppliers** from which animal nutrition products/ feed additives were bought within P12M - **Statements regarding brand equity, image and performance** (per respondent for BIOMIN and for one competitor – Alltech or Kemin) - **Overall satisfaction and willingness to recommend** (per respondent for BIOMIN and one competitor – Alltech or Kemin)
Fieldwork	The interviews were carried out in **February/ March 2020**

Contents

Summary of Key Findings

TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

Brand Awareness & Purchase Penetration

- Brand awareness: Highest for **BIOMIN** (unprompted: 35%/ prompted: 96%), **Alltech** (26%/ 89%) and **Kemin** (15%/ 83%). For Cargill, Vitam and Trouw Nutrition prompted brand awareness is between 70% and 80%.
- Purchase penetration: Also the highest for **BIOMIN** (59%), **Alltech** (54%) and **Kemin** (48%). Purchase penetration for all other manufacturers does not exceed 30%.

Brand Equity & Image

- Brand equity: **BIOMIN performs stronger than Alltech and Kemin** which is mainly driven by more positive rating for BIOMIN regarding **likeability, uniqueness, quality and relevance.**
- Product related aspects: **BIOMIN** is best rated on most dimensions, especially on **product quality** (certification, quality ingredients), **naturalness of ingredients and productivity increase**. Alltech is rated slightly higher than BIOMIN concerning constant product quality and providing sufficient consultancy regarding product application.
- Services and company representation: There is overall not much difference perceived between BIOMIN, Alltech and Kemin. **BIOMIN** stands out **positively regarding its representation in journals/ specialized magazines**, but **rep visit frequency is perceived as not frequent enough** compared to Alltech and Kemin.
- Company image: **BIOMIN** is seen as the **category leader with a clear business focus (scientific research, sustainability)** and the most **positive brand personality (approachable, trustworthy/ reliable, modern)** of all manufacturers. **Alltech as a big, international company** that offers **attractive conditions**.

Customer Satisfaction

- Overall satisfaction/ willingness to recommend: Satisfaction is higher for **BIOMIN and Alltech (both 68%)** than for Kemin (59%). The share of those who are extremely satisfied highest for BIOMIN (32%). **Net promoter score is highest for BIOMIN (+57)**, followed by Alltech (+36) and Kemin (+18).
- Recommendation drivers: Products that help to **increase productivity** are the most important driver. **Constant product quality, a well performing company rep** in conjunction with a **high level of service** (approachable, trustworthy, reliable) are other important drivers. For these drivers, **BIOMIN performs best regarding productivity increase and service,** but Alltech performs better regarding constant product quality.

Contents

Results in Detail

TheConsumerView

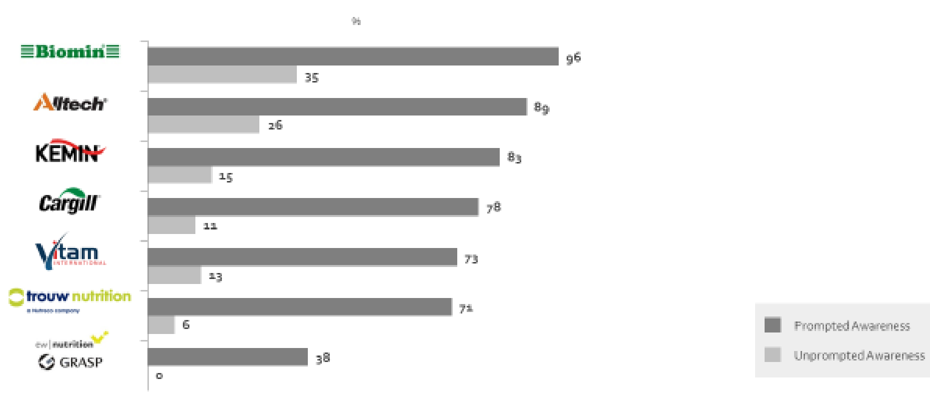
Awareness & Purchase

Unprompted and Prompted Awareness of Manufacturers

TheConsumerView

Highest unprompted and prompted awareness for BIOMIN, followed by Alltech and Kemin.

Q1/Q2: Which (of the following) manufacturers of animal nutrition products, feed additives and pre-mixes are you aware of, even if only by name?
(open ended, prompted list)



Other manufacturers with unprompted awareness ≥ 10% in 2020:
Meadow Feeds (10%)

Base: n=80

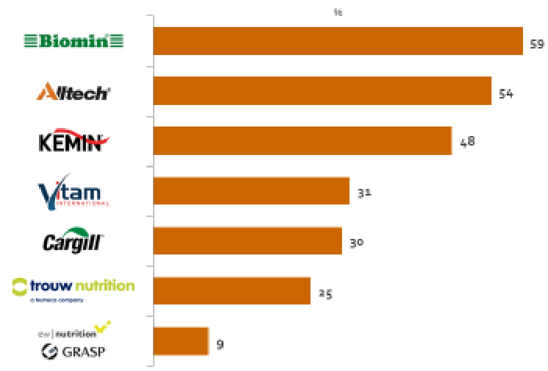
TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

Purchasing of Products from Manufacturers in P12M

**Highest purchase penetration for BIOMIN, Alltech and Kemin.
Vitam and Cargill follow with some distance with approximately 30% purchase penetration.**

Q3: From which of these manufacturers have you bought animal health products or feed additives within in past 12 months?
(prompted list)



Base: n=80

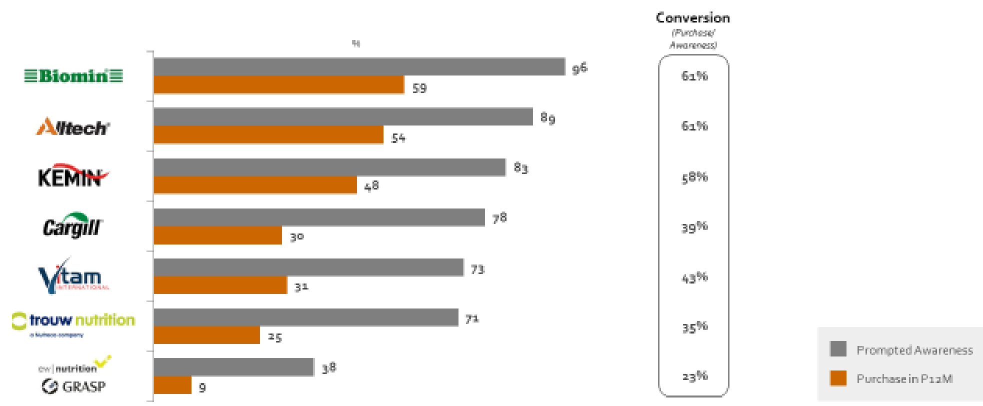
TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

Purchasing in P12M in Relation to Prompted Awareness

**Conversion of awareness into purchase on same high level for BIOMIN, Alltech and Kemin.
For all other manufacturers on significantly lower level.**

Q2: Which of the following manufacturers of animal nutrition products, feed additives and pre-mixes are you aware of, even if only by name?
Q3: From which of these manufacturers have you bought animal health products or feed additives within in past 12 months?
(prompted list)



Base: n=80

Results in Detail

TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

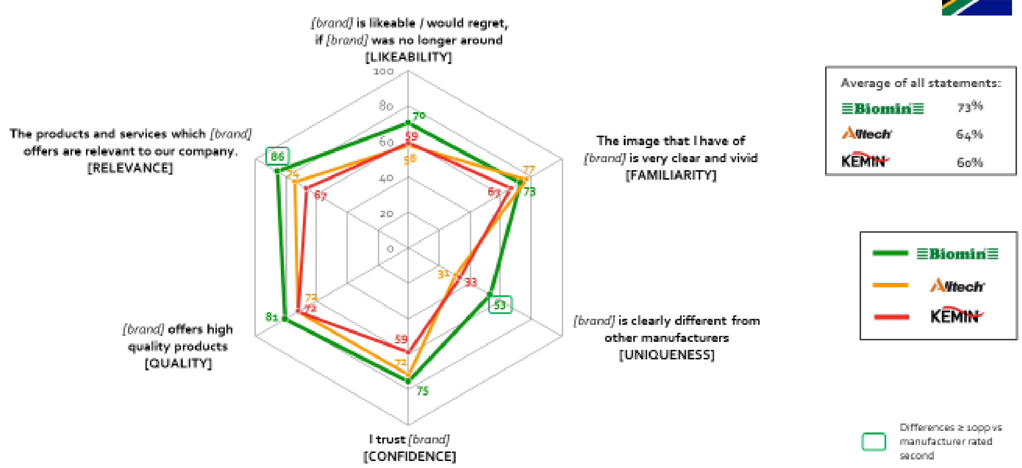
Brand Equity & Image

Brand Equity – BIOMIN vs Competitors

TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

BIOMIN performs stronger than Alltech and Kemin in terms of likeability, uniqueness, quality and relevance.
In terms of familiarity and confidence BIOMIN and Alltech perform stronger than Kemin.



Base: Respondents who are aware of the respective company (Biomin n=77, Alltech n=39, Kemin n=39)

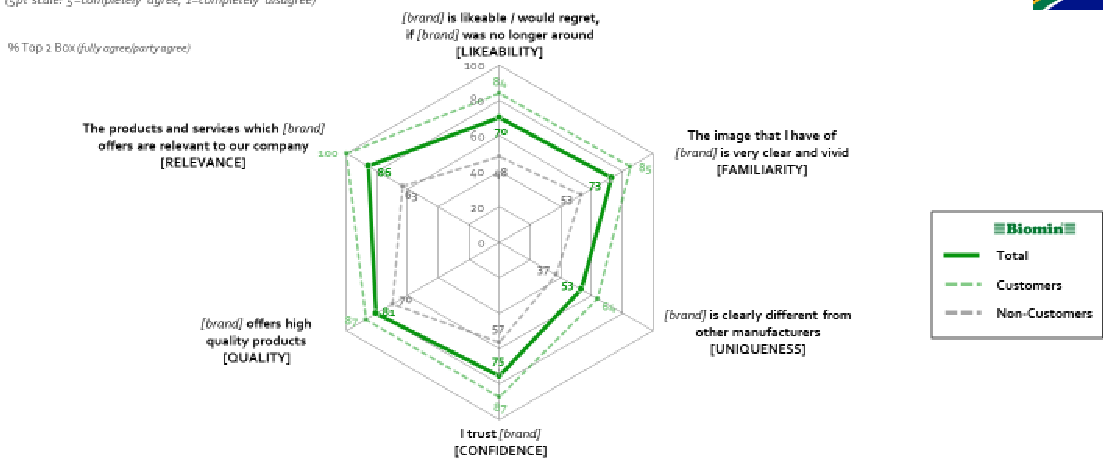
TheConsumerView

Consumer & Customer Understanding
Innovation Management
Strategic Marketing
Digital Marketing Solutions

Brand Equity – BIOMIN Equity among BIOMIN Customers vs Non-Customers

Among customers, assessment very positive on all dimensions except uniqueness. Among non-customers, lowest assessment for uniqueness and likeability.

Q5: To what extent do you agree with each of the following statements about … *[company name]*?
(5pt scale: 5=completely agree, 1=completely disagree)



Base: Respondents who are aware of Biomin
(Biomin Total n=77, Biomin Customers n=47, Biomin Non-Customers n=30)

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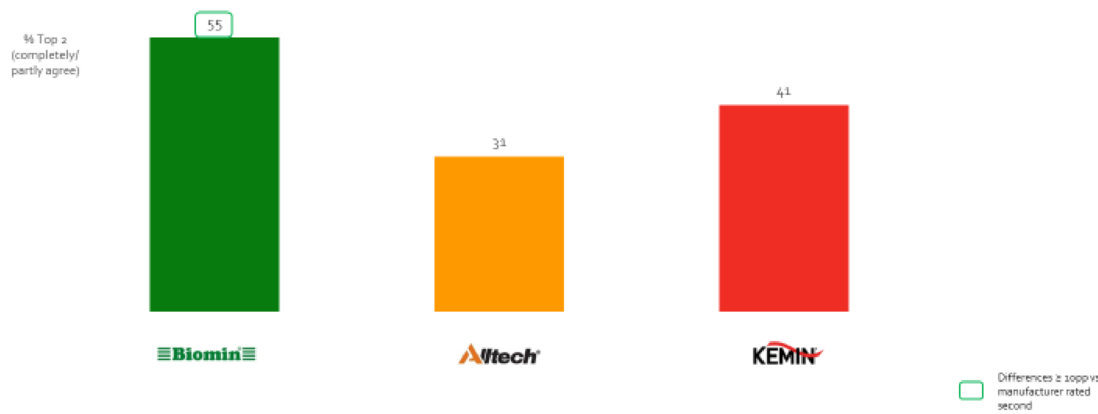
Brand Dynamics

By far highest expected growing future importance for BIOMIN, followed by Kemin.

Q5: To what extent do you agree with the statement: "… *[company name]* will become more important in future"?
(5pt scale: 5=completely agree, 1=completely disagree)

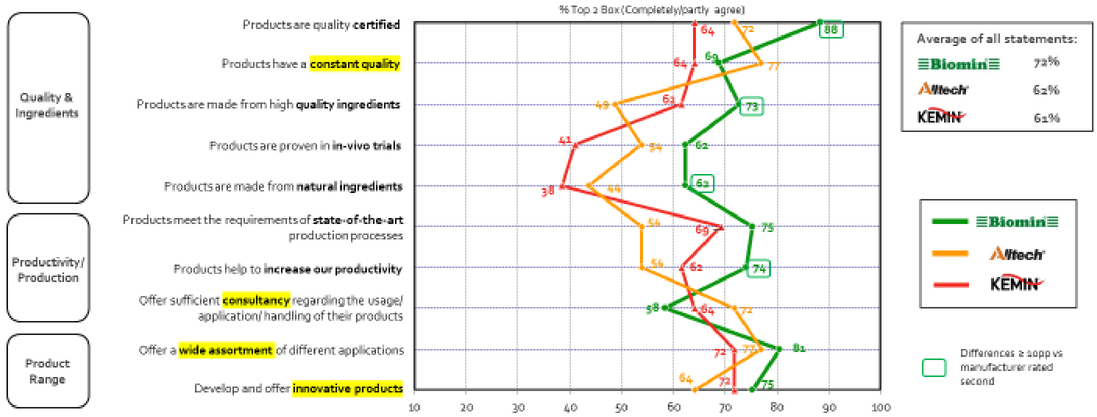


Base: Respondents who are aware of the respective company
(Biomin n=77, Alltech n=39, Kemin n=39)

Product Assessment - BIOMIN vs Competitors

BIOMIN best rated on most characteristics, especially on product quality (certification, ingredients), naturalness of ingredients and productivity increase. Alltech rated slightly higher than BIOMIN regarding constant product quality and sufficient consultancy.

Q6: To what extent do you agree with each of the following statements about … *[company name]*?
(5pt scale: 5=completely agree, 1=completely disagree; plus answer option "don't know")

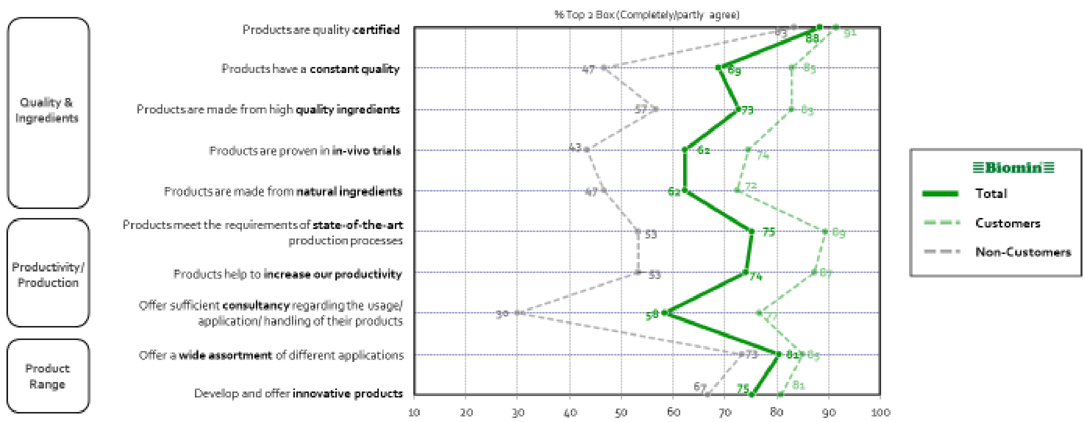


Base: Respondents who are aware of the respective company
(Biomin n=77, Alltech n=39, Kemin n=39)

Product Assessment - BIOMIN Customers vs Non-Customers

Among customers, assessment most positive for product quality, productivity and for state-of-the-art production processes. Among non-customers, quality certification and wide assortment of applications also high but support and product assessment rather low.

Q6: To what extent do you agree with each of the following statements about … *[company name]*?
(5pt scale: 5=completely agree, 1=completely disagree; plus answer option "don't know")

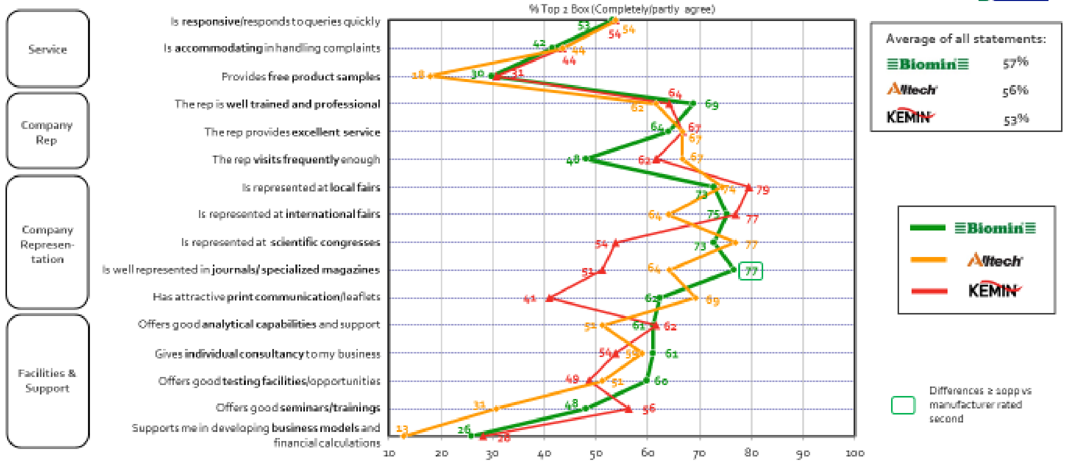


Base: Respondents who are aware of Biomin
(Biomin Total n=77, Biomin Customers n=47, Biomin Non-Customers n=30)

Assessment of Service & Company Representation – BIOMIN vs Competitors

In no dimension does a manufacturer significantly stand out from competitors, except BIOMIN which is considered to be better represented in journals. On the other hand, BIOMIN rated distinctly lower than competitors regarding frequency of rep visits.

Q7: To what extent do you agree with each of the following statements about … *[company name]*?
(5pt scale: 5=completely agree, 1=completely disagree; plus answer option "don't know")



Base: Respondents who are aware of the respective company
(Biomin n=77, Alltech n=39, Kemin n=39)

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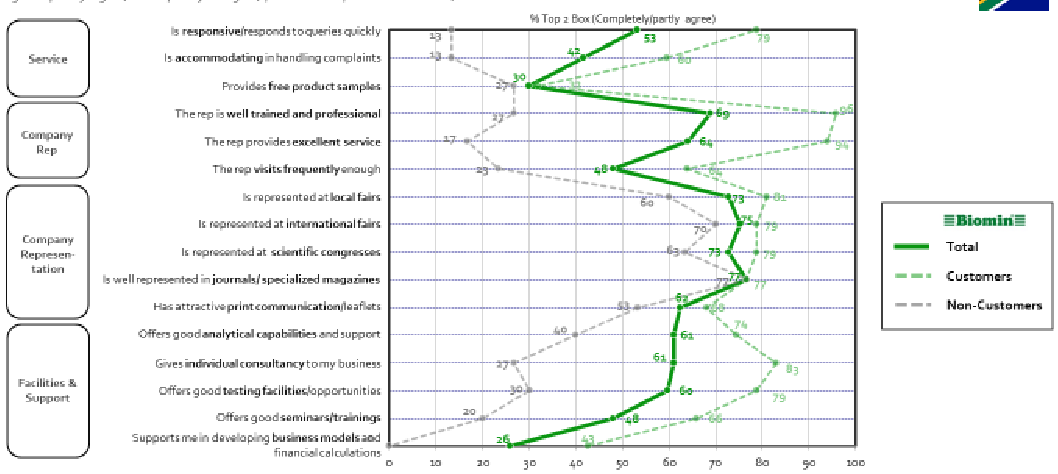
Assessment of Service & Company Rep. – BIOMIN Customers vs Non-Customers

Among customers, best perception of the performance of company rep, consultancy, testing facilities and responsiveness. A clear majority of non-customers gets in touch with BIOMIN on congresses/ fairs and/ or via printed media.

Q7: To what extent do you agree with each of the following statements about … *[company name]*?
(5pt scale: 5=completely agree, 1=completely disagree; plus answer option "don't know")



Base: Respondents who are aware of Biomin
(Biomin Total n=77, Biomin Customers n=47, Biomin Non-Customers n=30)

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Brand Image – BIOMIN vs Competitors

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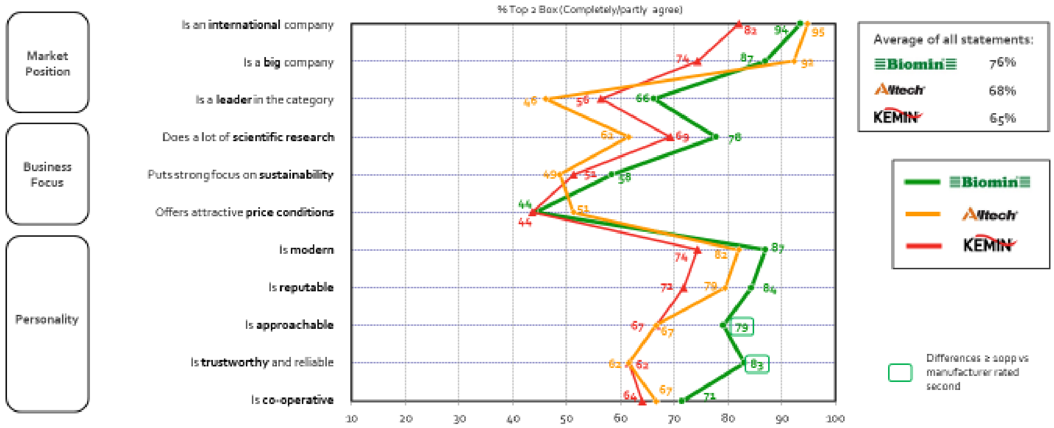
BIOMIN is in particular regarded as more approachable, trustworthy/ reliably than competitors, and is also more often seen as category leader that is modern and has a clearer business focus. Alltech appears as a big, international company that offers more attractive conditions than others.

Q8: To what extent do you agree with each of the following statements about ... *[company name]*?
(5pt scale: 5=completely agree, 1=completely disagree; plus answer option "don't know")



Base: Respondents who are aware of the respective company
(Biomin n=77, Alltech n=39, Kemin n=39)

Brand Image – BIOMIN Customers vs Non-Customers

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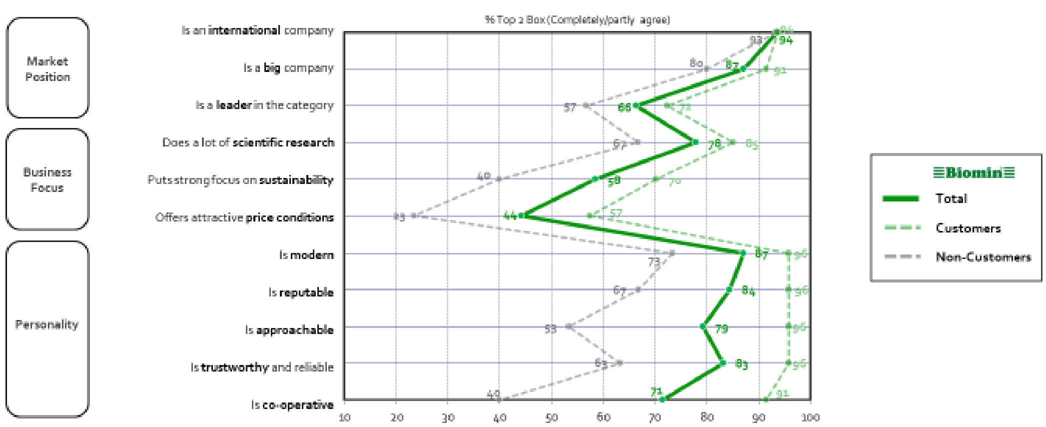
Customers see BIOMIN as a big international company that does a lot of scientific research and that is modern, reputable and trustworthy. Low attribution of attractive price conditions, sustainability and co-operation among non-customers.

Q8: To what extent do you agree with each of the following statements about ... *[company name]*?
(5pt scale: 5=completely agree, 1=completely disagree; plus answer option "don't know")



Base: Respondents who are aware of Biomin
(Biomin Total n=77, Biomin Customers n=47, Biomin Non-Customers n=30)

Results in Detail

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Customer Satisfaction & Recommendation

Overall Customer Satisfaction – BIOMIN vs Competitors

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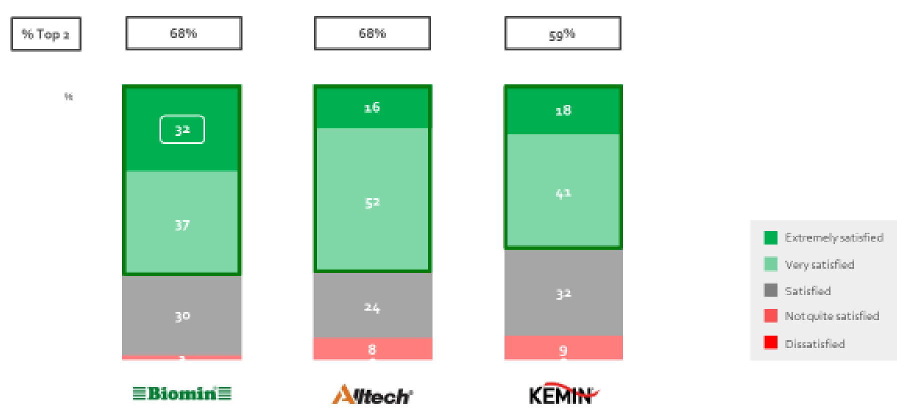
Overall satisfaction hgher for BIOMIN and Alltech than for Kemin.
Share of those who are extremely satisfied distinctly higher for BIOMIN than for both competitors.

Q9: Taking everything into account, what is your overall satisfaction with … *[company name]*?
(5pt scale: 5=extremely satisfied, 1=dissatisfied)

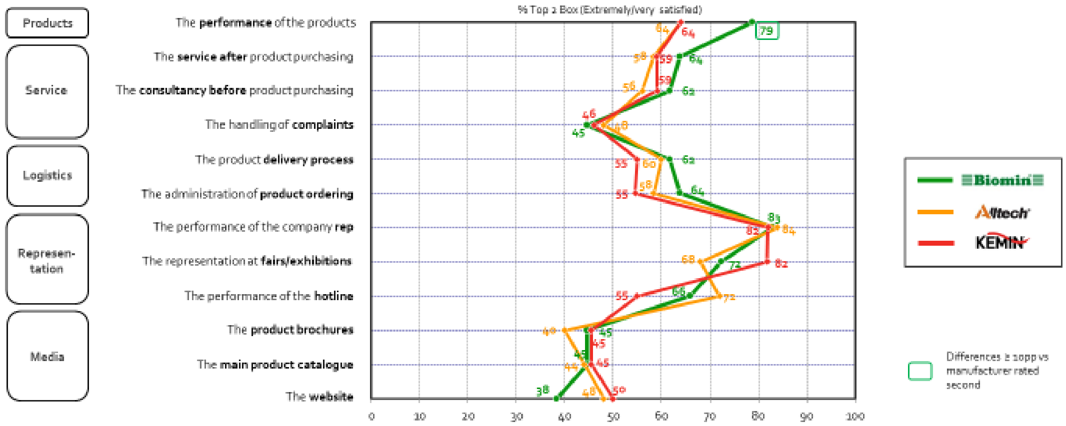


Base: Customers of the respective company (Biomin: n=47, Alltech: n=25, Kemin: n=22)

Satisfaction with Different Aspects – BIOMIN vs Competitors

BIOMIN customers are most satisfied with the product performance and the performance of the company rep. Two thirds of BIOMIN customers satisfied with logistics and service, except complaint handling from which satisfaction is lower.

Q11: Thinking about the products and services which … *[company name]* offers, how satisfied are you with … *[company name]* regarding the different aspects?
(5pt scale: 5=extremely satisfied, 1=dissatisfied; plus answer option "don´t know")

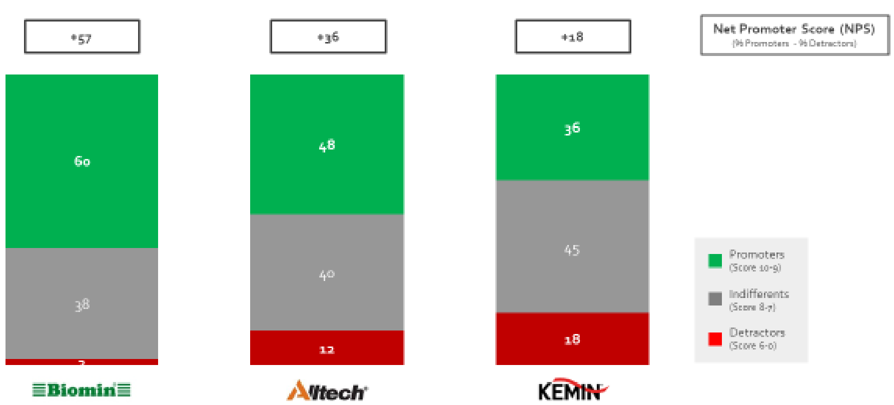


Base: Customers of the respective company (Biomin: n=47, Alltech: n=25, Kemin: n=22)

Likelihood to Recommend – BIOMIN vs Competitors

NPS for BIOMIN distinctly higher than for Alltech and for Kemin.

Q10: How likely would you be to recommend … *[company name]* as a supplier of animal nutrition products, feed additives and pre-mixes to a friend or colleague?
(11pt scale: 10=would definitely recommend, 0=would not recommend at all)

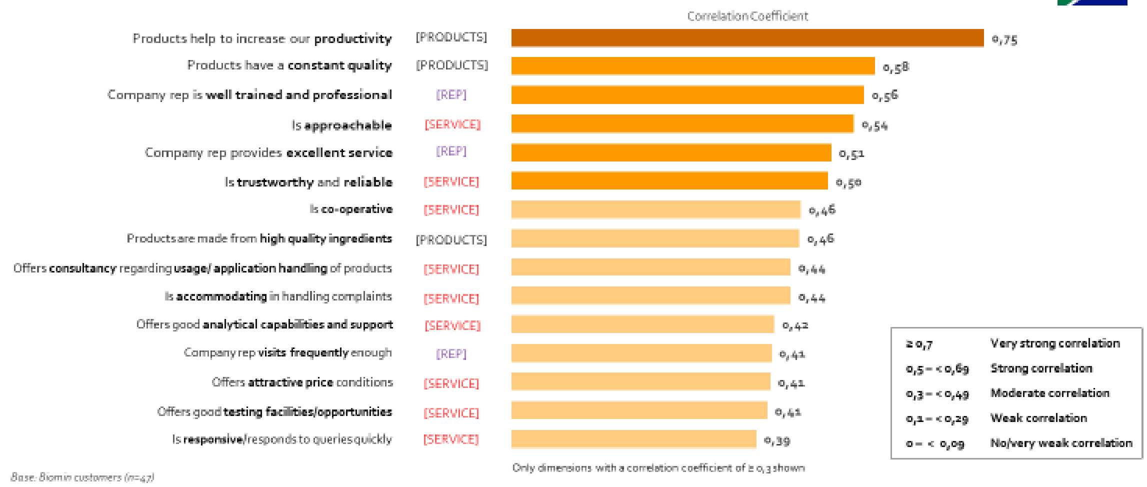


Base: Customers of the respective company (Biomin: n=47, Alltech: n=25, Kemin: n=22)

Drivers of Recommendation - BIOMIN

Increased productivity is the most important recommendation driver. Constant product quality, a well performing company rep in conjunction with a high level of service (approachable, trustworthy/ reliable) are other important drivers.

Correlation of assessment of BIOMIN on product, service, company representation and image dimensions (Q2 – Q4) with likelihood to recommend BIOMIN (Q6)

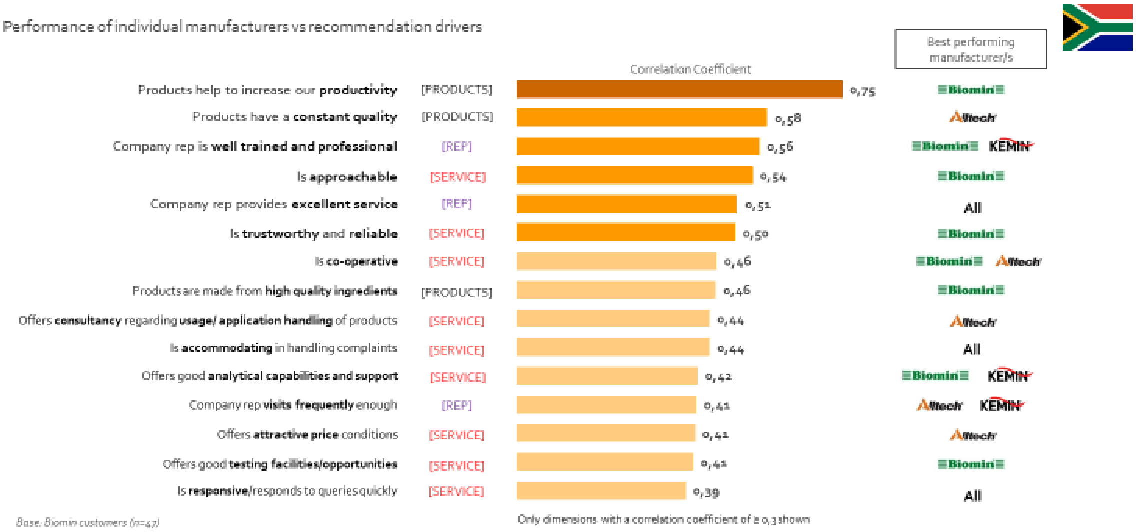


Base: Biomin customers (n=47)

Manufacturer Performance vs Recommendation Drivers

For the most important drivers, BIOMIN perform best regarding productivity increase and approachability, trustworthiness/ reliability, but Alltech performs best regarding constant quality.

Performance of individual manufacturers vs recommendation drivers



Base: Biomin customers (n=47)

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Results in Detail

Usage of Information Sources

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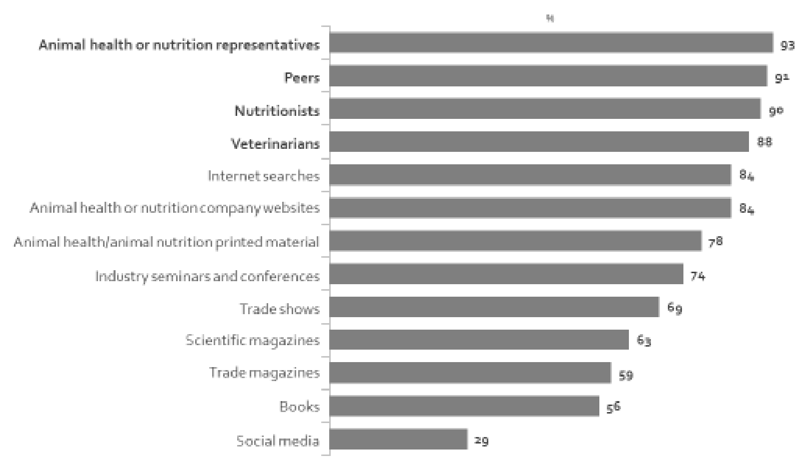
Usage of Information Sources

Company reps, peers, nutritionists and veterinarians are the most used information sources, followed by the internet (general searches and company websites).

S4: Which information sources do you consult when you are looking to get updated about animal nutrition products and industry updates?
(prompted list; yes/no)



Base: n=80

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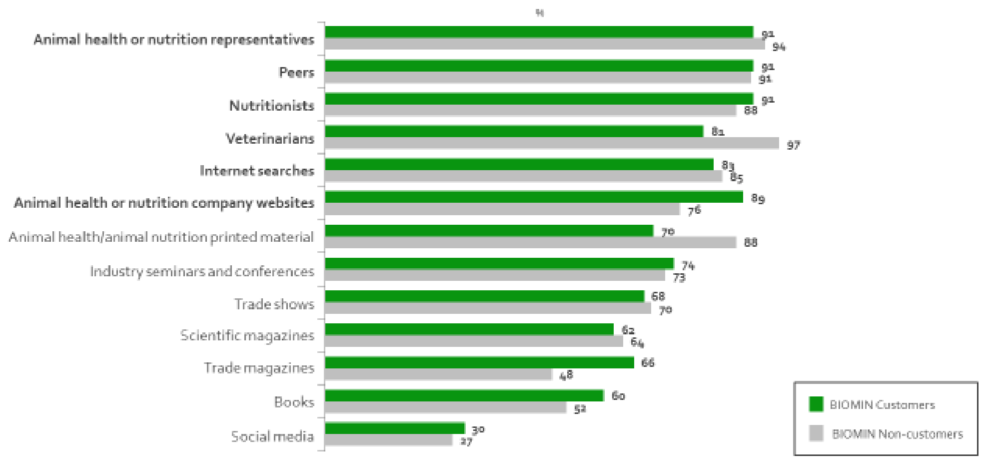
Usage of Information Sources – BIOMIN Customers vs Non-Customers

Overall, little difference in usage of information sources between BIOMIN customers and non-customers. Veterinarians and animal health/animal nutrition printed material more relevant for non-customers.

S4: Which information sources do you consult when you are looking to get updated about animal nutrition products and industry updates?
(prompted list, yes/no)

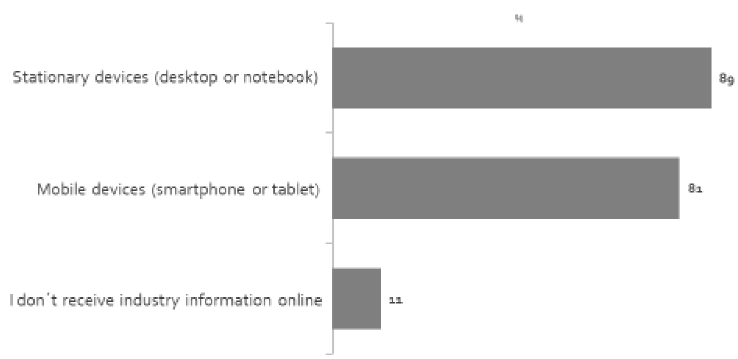


Base: Biomin customers n=43, Non-customers n=37

Usage of Devices

More than 80% look for industry information and updates on both stationary and mobile devices.

S5: When looking for information about animal nutrition products and industry updates online, which devices do you use?
(prompted list, yes/no)

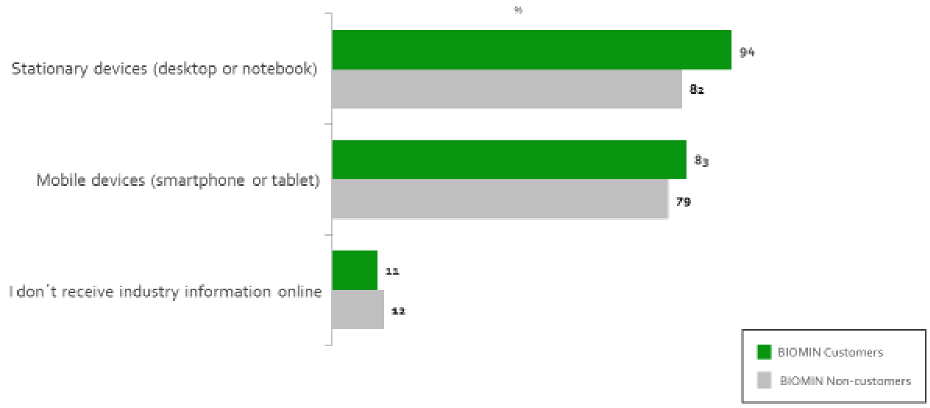


Base: n=80

Usage of Devices – BIOMIN Customers vs Non-Customers

No notable differences in usage of mobile devices between BIOMIN customers and non-customers. Stationary devices slightly more often used among BIOMIN customers.

S5: When looking for information about animal nutrition products and industry updates online, which devices do you use?
(prompted list, yes/no)



Base: Biomin customers n=43, Non-customers n=37

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Thank you for researching with us.
In case you have any questions regarding this report, please contact:

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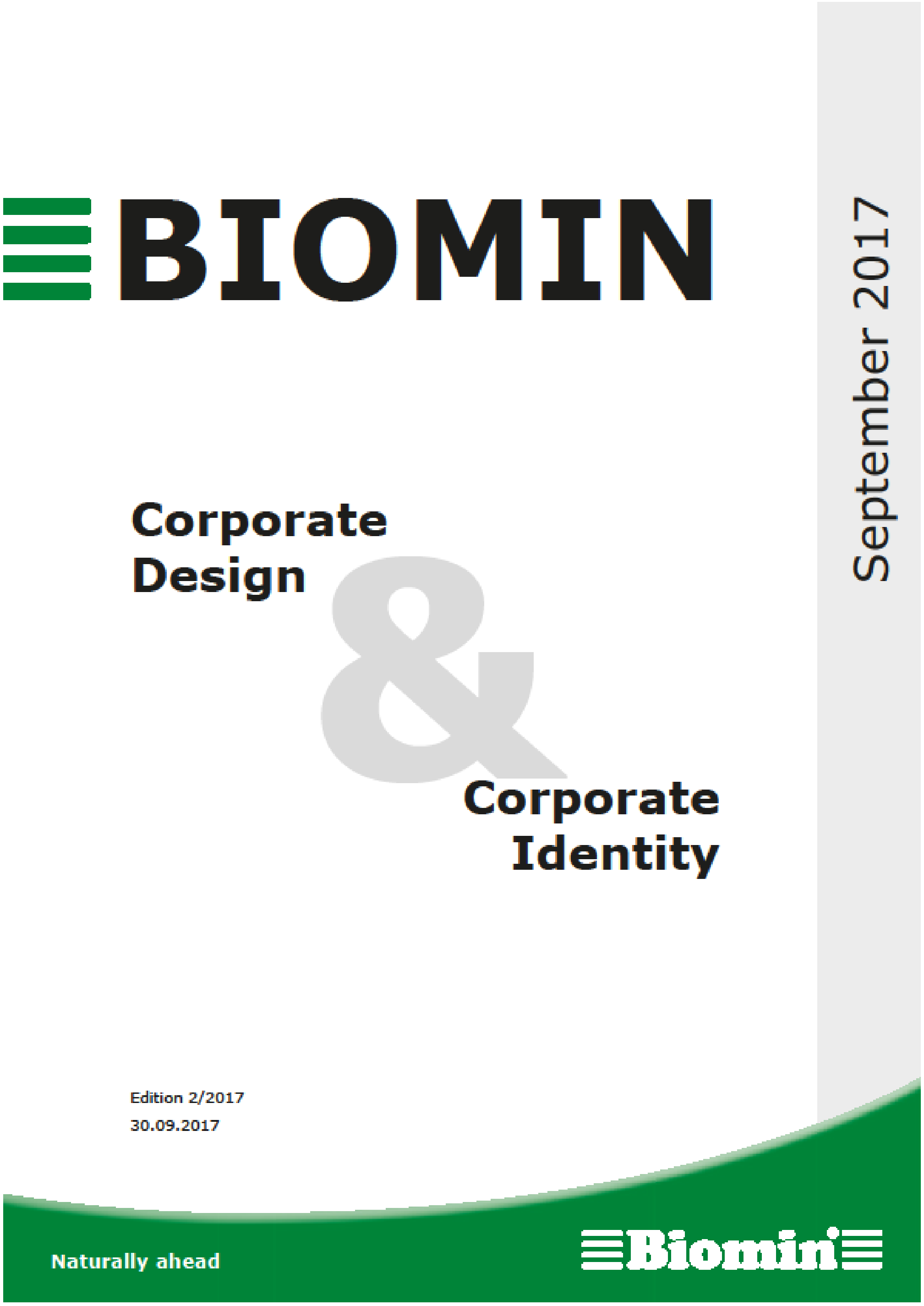
ADDENDUM C: Biomin corporate identity[1]



[1] Click on the image to access the full PDF document.