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Advanced
Manufacturing
Aotearoa

Panning for Gold with Desh Edirisuriya- Fisher & Paykel Healthcare

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There is no silver bullet to solve New Zealand's economic challenges, but gold nuggets are scattered everywhere. By diligently panning for these golden opportunities—in areas such as technology investment, workforce development, and innovation—we can accumulate the wealth of ideas and resources needed to build a resilient and prosperous economy. Through collective effort and strategic thinking, New Zealand can turn its potential into sustained growth and success.

Economies need to have manufacturing. New Zealand needs to have manufacturing. If you don't have manufacturing, you become invisible. It is a high-value job for our economy. One of these shining examples of New Zealand's manufacturing success is Fisher & Paykel Healthcare, a company that has not only become a critical player in the global healthcare market but also a cornerstone of innovation and economic stability.

About Fisher & Paykel Healthcare

Fisher & Paykel Healthcare is a leading designer, manufacturer and marketer of products and systems for use in respiratory care, acute care, surgery and the treatment of obstructive sleep apnea. The company's products are sold in over 120 countries worldwide. For more information about the company, visit our website www.fphcare.com.

Everyone starts small

Originally founded in 1969 as a division of Fisher & Paykel Industries, Fisher & Paykel Healthcare was built on a vision to emulate the body's natural humidification processes. It all started with Dr Matt Spence, an intensive care specialist at Auckland Hospital, who noticed his patients on mechanical breathing machines were suffering from dry and infected tracheas. For help solving the problem, he turned to Alf Melville, a government electrical engineer, and Dave O'Hare, a senior engineer with appliances company Fisher & Paykel Industries. The three collaborated to find an innovative solution, and the result was a prototype humidifier made from a humble fruit preserving jar, which was then designed and manufactured by a small team at Fisher & Paykel Industries.

Overnight success takes 20 years

The first respiratory humidifier was sold in 1970 and was marketed internationally. By 1990, the medical division of Fisher & Paykel Industries had been renamed Fisher & Paykel Healthcare, and its annual sales had grown to $29 million.

Fast forward to 2024, F&P reported total operating revenue of $1.74 billion for the 2024 financial year (a 10% increase year over year, or 8% in constant currency).For the 2025 financial year, F&P expects operating revenue in the range of approximately $1.9 billion to $2.0 billion.

Growth has not been by accident. To achieve 10%-12% growth year on year for the last 50 years, F&P has been quite driven to compete. They achieve that by thinking in a particular way and the result of significant investment in research and development. Investment in R&D was 11% of revenue, or $198.2 million for FY24. The company employs more than 900 Auckland-based R&D staff.

Expansion

The scale of Fisher & Paykel Healthcare is truly impressive. Their current site spans 100 acres in Highbrook, Auckland. Each of the four manufacturing plants on the New Zealand site are approximately 7000sqm with New Zealand accounting for approximately 55% of manufacturing volume. Additionally, F&P are poised to expand their manufacturing operations further with the acquisition of another 257 acres (104 hectares) in Karaka, Auckland.

A third manufacturing facility was recently opened in Tijuana, Mexico. Tijuana is a hub for global medical device manufacturers, providing access to a highly skilled workforce and proximity to major markets in the United States and Canada. F&P recently commenced global exports from their new distribution centre in Tijuana, Mexico. At the end of their last financial year, Mexico accounted for almost 45% of the manufacturing volume. Work has also progressed on a new manufacturing facility in Guangzhou, China to service the Chinese market.

Distance From Market & Plant Productivity

"*Even though we are successful, we are looking at how to continue to be competitive in an environment where everyone is moving forward. So, we have to move forward faster than everyone else. This is the thinking required by New Zealand manufacturers to remain globally competitive*," says Desh.

Being in New Zealand and so far away from markets, you need to be highly productive to compete. With shipping times of approximately six weeks, Fisher & Paykel Healthcare must leverage the plants' productivity to compete on the total value chain.

Importing raw materials that New Zealand doesn't produce presents a double whammy. With approximately 2,500 to 3,000 tier-1 suppliers globally, we would like to shorten our value chains as much as possible. Understanding our business, the capabilities we expect from a quality systems perspective, scale and component tolerances can present challenges for supporting industries.

One of the best things F&P did 20 years ago was to embark on a lean manufacturing journey. In the plant where the journey started, F&P managed to increase volume out of that plant 3 to 4 times without additional people, increasing plant space or new equipment. That productivity gain then shifted the mindset as an organisation and now similar tools and thinking is applied across other supporting processes.

Focus on People

Fisher & Paykel Healthcare is dedicated to a long-term vision and social responsibility. Their manufacturing not only drives innovation but also creates jobs and boosts exports, fuelling both regional and national economic growth. F&P employs approximately 3,700 people in NZ (7,000 globally) with approximately 50% in manufacturing here in NZ.

The tenure of people is long at F&P. There is a strong focus on retention. Desh Edirisuriya, General Manager – New Zealand Operations who started with Fisher & Paykel Healthcare as a graduate in 2000 and recently joined the Executive Management team in April 2024, is a good example. Over that time, Desh has held various roles in business excellence, manufacturing operations and product development, including leading the company's response to COVID-19 and embedding their culture of continuous improvement. Most recently, he served as General Manager – NZ Manufacturing Operations & Business Excellence. Desh holds a Bachelor of Engineering (Mechanical) from the University of Auckland, New Zealand.

Talent attraction and retention

The talent challenge lies in finding workers with the necessary skill level to make F&P competitive on a global scale. Their competition isn't within New Zealand; F&P compete with global companies, including those with headquarters in the USA, Europe, and China, requiring the business to maintain a high skill set.

F&P seek to build a pipeline of talented people, from interns and graduates to senior technical and leadership positions. F&P believe in giving all employees every opportunity to learn, grow and advance toward their full potential, and rewarding them for their contribution to the company's success. F&P aims to build a team of good people doing good work with intent.

Intern & graduate recruitment

A key part of the talent strategy begins with intern and graduate recruitment where they work closely with local tertiary institutions. F&P participate in career expos and engage on social media to recruit talent in a broad range of functions such as engineering, marketing, finance and ICT. F&P continue to sponsor student events and engineering societies to increase their brand awareness and build strong partnerships.

During the 2024 financial year, F&P implemented several improvements to their recruitment and selection process including many focused on diversity, equity and inclusion, such as offering candidates new options for communicating their skills and experience. This saw a 35% increase in intern applications over the previous financial year. In New Zealand, F&P recruited 153 interns for the summer, and 71% of the new graduate roles for 2024 were filled by previous interns.

Four interns were welcomed through a collaboration with the Fisher & Paykel Healthcare Foundation and two of its funding partners. This year, nine early career marketers participated in an Early Careers Marketing Programme, gaining specialised knowledge, networking and mentorship in marketing.

Learning and leadership development

The learning and leadership development approach incorporates experiential learning, online learning, workshops, and self-paced development activities – all underpinned by a culture of coaching. One of the first learning opportunities is the F&P welcome induction, where new hires gain essential knowledge about the F&P purpose, values, policies, and requirements for working in a medical device company. In the 2024 financial year, 382 employees were inducted in New Zealand.

Employee development

Throughout their careers, opportunities are provided to continue learning and earning qualifications. Learning options include general workplace skills, digital skills, technical qualifications, clinical education, and formal diplomas and degrees. Below are some highlights from the 2024 financial year.
- In New Zealand, 11.5 average training hours were recorded per salaried employee.
- More than 20 New Zealand employees gained skills in communication and numeracy and 18 were trained at their new injection moulding training centre.
- 12 employees were sponsored to complete a Master of Medical Engineering degree at the University of Auckland.

Leadership development

New and experienced managers are provided with guidance, resources, and tools to become better leaders through classroom-based learning, workshops, and online platforms. Topics include situational leadership, coaching, emotional intelligence, resilience, continuous improvement, personal efficiency, and leadership essentials.

During the 2024 financial year, the New Zealand team held 66 leadership learning sessions with a total attendance of 724 people. The team in Australia hosted six global leadership forums, with over 250 senior leaders participating.

Growing the skills we need for the future in the manufacturing space
F&P Healthcare aim for long-term retention of their employees and continues to improve the specific intake process to assess candidates based on dexterity and their ability to understand procedures (baseline skills).

“As the machines and technology change, you need a range of skills to maintain the equipment. Historically, the skillset was specialised, based on trade skills, but we need a combination of all of those skills for individuals to do the work in future,” says Desh.

F&PH are currently thinking about the future of work for all of their people in manufacturing. They have broken this into:

1. What do we need to be able to manage the technology (equipment and software) we are getting into production in the future?
2. What do we need to do, to be good at managing processes in the future?
3. What do we need to do to have assembly workforce that is capable? Leadership as well as shopfloor.
4. What do we need to do to develop problem-solving capability and a CI mindset across everyone?

Mindset of Continuous Improvement

Continuous improvement remains a critical focus across the business, particularly when inflation impacts manufacturing costs and the price of raw materials. F&P has a mindset that every day we must be better than yesterday to compete at a global level.

“*True innovation occurs when people are empowered to improve the way they do the work, which requires developing our people’s problem-solving capabilities and connecting them with our product and process development teams. This allows us to leverage our workforce to help design products that can be manufactured easily, not just manufacturing products to a design. We have a framework that empowers all workers to achieve this,*” says Desh.

Manufacturing becomes complex at scale. If you can make one good product, you know the process, and deviations become apparent. The challenge is identifying why variations occur, which involves analysing the Lean 5M elements: man, machine, material, method, measurement, and mother nature. Once these are understood and controlled, the process becomes stable and capable. The engineering challenge then shifts to increasing efficiency, such as reducing the production time from one every five seconds to one every three seconds. That requires different thinking and approach. The answer lies in data. Engineers use a lot of data to understand ‘How do we shift this yield up?’

“*Often, our competitive advantage lies in the manufacturing process, as the methods for producing our unique products are not known to others. This know-how serves as a significant competitive edge*,” says Desh.

"*We only automate where it makes the most sense to do so. Some aspects are still very manual and that's because when you make 30 or 40 different products on one line, 'hands' are still the best flexibility you can get otherwise there are too many tool changes which eat into production time and too many potential issues that someone would have to go in and fix*," says Desh.

Advice from Desh when it comes to integrating advanced technologies into your manufacturing process:

It is important to understand your process. Understand what tool is required for what purpose. You don't buy a hammer and find a nail to punch. In certain areas, automation is kept to a minimum.

- What can you do to eliminate waste by improving flow through your process?
- What problem are you solving for the business? Then solve that problem effectively.
- Understand where technology can really help your business to move forward with things that matter – that's the key. Avoid automation for the sake of automation.
- Is introducing that fancy new tool going to give you value in the long term? Is that investment going to sustain the business for a long time? Technology is one of those things that changes constantly – you could get into a technology debt trap. You could invest in something and your customer requirement could change, your business model could change, what you need to do could change. And then you become a very difficult beast to move and change, losing your flexibility and agility in the process.

Management and leadership capabilities

Investment in people – whether it is leadership or technology – is tied to what F&P needs as a company and "what problem are we trying to solve"? For example, the problem in the technical space is capability is required in the long term to sustain future production plans. What are those skills? That is what F&P will develop people for.

"*That's where groups like Advanced Manufacturing Aotearoa can help. It's not about the solution. It's about the problem and how you go about solving whatever business problem you have. There is a crucial role to play in creating those networks where businesses can share their unique solutions to their current problems and create innovative learning with larger businesses helping and supporting.*"

At F&P, their problem-solving approach is methodical and thoughtful. They recognise that solutions to similar issues might vary across different plants. This mindset encourages them to constantly question and refine their methods, ensuring that their actions are driven by a thorough problem-solving process.

"*By understanding our approach, we hope other businesses can learn to leverage their own strengths to address their challenges effectively. We prioritise cost-effective improvements, investing only when necessary. We do a lot of things without spending any money to improve things. We only do it where it is necessary. Not everything needs to be something you spend money on,*" says Desh.

Today, we must have a growth mindset. Inspired by the words of F&P's Managing Director and CEO, Lewis Gradon: "We must seek out the world's best experts and learn about world-class practices, but then we go above and beyond to do something different, something better." Let's look ahead for a long-term vision and plan for the manufacturing sector that will deliver greater productivity and prosperity for all New Zealanders.