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**KC5 – Corporate Strategy and Contemporary Issues
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Pre-seen

Minerva Engineering and Minerva Exports

Background

Migara Siriwardhana was the youngest child in a middle class family from a suburban area of the Southern Province of Sri Lanka. He was born in 1964 and educated in a leading school in Southern Sri Lanka. He was probably not the brightest student in the batch, but he always had a practical approach to solving problems with innovative thinking.

After he completed his Advanced Level examinations he entered the University of Moratuwa to follow the National Diploma in Technology (NDT) in Electrical Engineering. There he performed very well with his innovative skills and practical approach to solving problems, and passed out in 1990 with a merit. Following this, he was offered a tutor position at the University. However, he decided to accept an offer made by a multinational company instead (where he apprenticed during his in-plant training) to join as an assistant engineer.

Migara was a quick learner and mastered various aspects of electrical engineering whilst working at the multinational company. He had the rare opportunity of working with well-known engineers in designing various electrical circuits and electrical products. In two years he became technically very sound and was promoted to a technical officer. As a technical officer he had more opportunities to gain experience in technologically advanced products, for which the company was the local agent. Migara also had the opportunity to design solutions for the clients of the company. However, although he would develop various innovative designs, the management rejected most of them on the basis of cost ineffectiveness.

Being disappointed with the management's responses, Migara left the company in 1995 and joined a medium scale construction company as an assistant engineer. There he was engaged in designing electrical installations for the construction projects undertaken by the company. He was keen on providing high quality solutions to customers with the best products in the market. He innovatively designed the installations and was appreciated by the customers. Migara then proposed to the company's management to invest in computer aided design (CAD) tools to enhance the quality of customer solutions.

However the company being a medium-sized company in the industry, with a clientele that was always cost-conscious, could not afford such an investment. Further in the case of some clients, the original designs Migara had developed had to be revised to meet their cost expectations. In addition, the owners of the company withdrew all the profits and did not reinvest them to grow or develop the company.

It was during this time (in 1995) that Migara tied the knot with his college sweetheart, Nerasha. By that time Nerasha had passed out from the Colombo Medical Faculty and was working at the Castle Maternity Hospital. They were blessed with two sons in 1998 and 2002.

During this same period Migara enrolled at the Institution of Engineers Sri Lanka, completed its examinations and became a Chartered Engineer. This experience enabled him to develop strong relationships with key players in the construction industry.

By 2002 Migara was fed up with his job and thought of starting his own business. He thought his strong technical ability and the network he had established would help him prosper. He discussed this matter with Nerasha who wholeheartedly extended her blessings for the new venture. A few others in the industry who were known to Migara also promised to help him if he started on his own.

Minerva Engineering (Pvt) Ltd (Minerva Engineering)

Minerva Engineering (Pvt) Ltd (Minerva Engineering) was established in 2003 with the business proposition of providing mechanical and electrical (M&E) installations for buildings. Initially the operation was conducted from a small house owned by Nerasha's father in Mirihana. Migara and Nerasha were the initial shareholders having equal shareholdings, and the two of them were the only directors of the company. Out of the savings they had, LKR 800,000 was contributed as initial capital. Nerasha continued with her medical profession and did not get involved in the business, which was entirely run by Migara.

Initially there were only five employees. Priyantha was the assistant engineer. There were three skilled technicians and one administrative assistant who handled the day-to-day administrative functions including maintenance of bank accounts and documentation. Migara was involved mostly in business development (using his network) as well as in planning, designing and supervision of work. Priyantha was very passionate about work at Minerva Engineering and very loyal to Migara. He overlooked all the work at the customers' premises.

After a few years Migara developed direct contacts with a few manufactures of electrical products that were used mainly in M&E installations. He imported these items and maintained a reasonable amount of stocks sufficient to meet the demand of the installation projects.

Amal Rangajeewa, Migara's long-standing friend who had an accounting and tax practice, assisted in maintaining the accounting records of the company. Amal acted as the company secretary and looked after the tax matters and returns filing with the Department of Inland Revenue and Registrar of Companies. He also functioned as the auditor of Minerva Engineering.

Within a short period of time Minerva Engineering had considerable growth and was recognised for its M&E installations and electrical products. In 2008 Migara bought half an acre plot of land in Thalawathugoda and set up an office and warehouse. He also recruited Lakshan Sandaruwan as a senior engineer and Rukshan Ranawaka as an assistant accountant. Lakshan was an experienced professional engineer who was very clever and had developed many contacts in the industry.

By this time Migara had developed some political connections as well, and he was very close to a minister from his hometown. He also made occasional donations for political

work, but more than monetary contributions, he spent quite a lot of time on such activities. Consequently much of the workload with regard to managing the company was carried out by Lakshan.

Rise in the construction industry and Minerva Engineering's advancement

By 2010 Minerva Engineering had become one of the prominent companies in Sri Lanka that specialised in M&E installations in low-rise building complexes having less than three stories such as factories, resort hotels, supermarkets and shopping complexes. Many building contractors preferred to have Minerva Engineering as the subcontractor for M&E installations in their projects because of its high standards and quality.

Since most clients preferred to work through one main contractor for the entire construction, Minerva Engineering was not directly appointed by the clients for its specialised work. Minerva Engineering was not in a position to secure contracts as the main contractor because it did not undertake civil construction work, which is the main component in any construction contract. However Migara had close connections with a few large civil contractors and project consultants who recommended Minerva Engineering for the M&E component of contracts as a subcontractor.

By the same time Minerva Engineering had expanded to provide, in addition to M&E subcontracting services, other products such as lightning and surge protection, telecommunication installation and maintenance services, and extra low voltage services.

Following the end of the civil war in 2009, the construction industry began to show potential for significant growth. At that point Migara realised that there was potential for Minerva Engineering to grow too with the envisaged growth in the industry. He wanted to be ready for the opportunity and decided to expand the company's resources.

In 2011 Minerva Engineering started to get awarded quite a number of M&E subcontracts in relation to large projects, including one project in the Seychelles. This was the first overseas project that Minerva Engineering got involved in. Migara's political influence and Lakshan's contacts had a significant influence in securing some of these large contracts. Lakshan worked around the clock with the other employees to successfully complete the work. Rukshan also played a significant role in managing the finances during this period.

Fallout of senior employees

However during the latter part of 2012 both Lakshan and Rukshan left the company as a result of a dispute they had with Migara. Lakshan expected a sizable performance bonus for securing and accomplishing some of the contracts, which Migara did not agree to. There were also some shortages in stocks for which Lakshan and Rukshan were allegedly accused for, based on suspicion created by Vijith Ranasinghe, another engineer who was close and loyal to Migara. Vijith had started his career as an apprentice and had come up the ladder with experience.

With the exit of Lakshan, Migara faced the challenge of managing the workload as the company was expanding at that time. Following the issue with Lakshan and Rukshan, Migara realised the need for appropriate controls on administration. He invited Sahan Kariyawasam, one of his friends, to join Minerva Engineering as the head of personnel and administration, and entrusted all the personnel and administration work to him. Sahan, a wildlife enthusiast, was on early retirement from the Wildlife Department where he had worked as an administrative officer.

Structural change and new management

According to Migara, Minerva Engineering had developed its brand name to be the leading M&E service provider in the country. With that confidence he believed that he could attract many jobs during the anticipated growth phase. In anticipation of new subcontract work, Migara believed that the M&E segment needed to expand with the recruitment of new engineers and skilled staff.

Migara created two separate divisions in the business: M&E division and telecom services division. The M&E division was assigned to carry out all the M&E installations and design work relating to subcontracted projects, whereas the telecom services division was entrusted with work relating to lightning and surge protection, telecommunication installation and maintenance services, and extra low voltage services. The two divisions were treated as profit centers. Majority of the work relating to the telecom services division was connected to projects undertaken by the projects division. However under the new structure, such work was separately priced and evaluated.

Migara appointed Vijith Rajasinghe as the general manager of the M&E division. Sahan Kariyawasam was appointed as the general manager of the telecom services division in addition to his responsibilities relating to personnel and administration work. Migara designated himself as the chairman/managing director of the company.

The entire recruitment drive was carried out by Sahan, along with the technical input of Vijith. When selecting senior staff such as engineers Vijith always preferred those with experience and not young people with a university education background. Therefore almost all those who were recruited for senior positions were middle-aged staff with past experience.

Challenges and opportunities

Attracting skilled workers was a challenge that was entrusted to Sahan, as he was the head of personnel and administration. Sahan made an attempt to develop relationships with technical colleges and attract those students passing out from them. However he was not very successful in attracting the best candidates, as they preferred to join more reputed companies from where they got better offers. Consequently Minerva Engineering ended up getting the second tier students passing out from the technical colleges.

Nevertheless by mid-2013 Minerva Engineering had a workforce of 70. Sahan also brought in two known people, Primal and Madava, as the accountant and assistant manager of administration respectively. Primal had passed out from the University of

Sri Jayewardenepura with a second class (upper) and had completed the CA Business Level examinations, whereas Madava had just enrolled with the Institute of Personnel Management having completed the human resources degree at the University of Sri Jayewardenepura.

The expected growth in the construction industry following the end of the civil war did not pick up as fast as expected until the latter part of 2012. However after that Minerva Engineering started getting a considerable amount of work through main contractors. They were also appointed as the M&E subcontractor for two projects in the Maldives where both projects were to construct large resort hotels. The good performance in the Seychelles project influenced its main contractor to get Minerva Engineering involved in these two projects too. The work of these two projects was largely performed in 2014.

By this time many high-rise apartment building projects were coming up in Sri Lanka. Two civil contractors with whom Minerva Engineering was working closely had got themselves involved in a few construction projects of high-rise apartment complexes. Even though Minerva Engineering had not done any M&E installations in high-rises before, Migara requested those civil contractors to consider Minerva Engineering as the M&E service provider for those projects. Accordingly, Minerva Engineering was awarded two high-rise projects for M&E installation, with the projects spanning over a period of 2-3 years.

Two new engineers who had been recruited were appointed as the project managers. Other teams were formed from the existing workforce to provide support in terms of design and planning, quantity surveying and logistics. Vijith performed the overall supervision of both projects as well as other projects carried out by the company.

Towards the end of 2016 Minerva Engineering was at full strength with a workforce of nearly 120. Nevertheless Vijith had to engage several subcontractors to provide skilled labour as there were shortages of skilled labour at certain times. Further, the company workers sometimes did not have the required skills. In most of these instances the subcontracted labour rates were higher than the rates used when quoting the price for the contract, which was based on the labour rates of the company's own workers.

Minerva Exports (Pvt) Ltd (Minerva Exports)

A significant component in all M&E installations performed by Minerva Engineering was the provision of power panels. Minerva Engineering used to manufacture its own power panels in a small facility set up within the same premises in Thalawathugoda. However, with the increase in projects Minerva Engineering could not meet the requirement with the capacity of its facility. As such, power panels had to be purchased from other manufacturers at higher prices.

Migara thought that if he had sufficient capacity he could produce power panels at a lower price and thereby make higher profits from the contracts. When he was contemplating this idea Priyantha, one of his long-standing employees, suggested him to expand the existing facility with room to produce power panels for the export market. At the same time he was also invited by the minister he was associating with to set up a

factory in the Biyagama Export Processing Zone (EPZ). Migara, who was motivated by the invitation, decided to set up the power panel factory in the EPZ.

Accordingly Minerva Exports (Pvt) Ltd (Minerva Exports) was incorporated with an equity investment of LKR 30 million during the last quarter of 2014/15. Construction of the factory commenced in the first quarter of 2015/16 with the remaining capital arranged with a local bank by Minerva Exports.

The bank was given a feasibility report where it was identified that the operations would commence in April 2016 and average exports during 2016/17 would be LKR 20 million per month, and during 2017/18 they would be LKR 30 million per month. Migara had identified Kenya, Ethiopia, Nigeria and Myanmar as potential markets, as many constructions were coming up in those countries.

Migara had confidence in securing two major contracts for the supply of power panels to Grand Hyatt building construction project in Colombo 3 and to the Water Front project scheduled to commence in the Port City. The projections included in the feasibility report had taken into consideration these businesses expected to be secured.

Based on these projections the company made arrangements to have other requirements in place such as the workforce and inventories. Migara appointed his brother-in-law Sujith Perera, as the executive director of Minerva Exports. He was also appointed as a non-executive director of Minerva Engineering. Sujith is a retired Civil Servant who was much respected for his honesty and integrity while he was in Civil Service. Further Migara recruited Harshana Munaweera as the business development manager who held the same position in a competitor company which was down-scaling its business due to poor performance. He was entrusted with the functions of tendering and technical quality control. Dulika was recruited as the assistant accountant. Both of them were reporting to Sujith and were working under his guidance.

In addition to the facilities secured from the bank, Minerva Engineering provided financial support to the company whenever needed.

Since Minerva Exports was required to export all its production, Minerva Engineering had to retain the power panel manufacturing facility it originally had in Thalawathugoda in order to cater to local projects.

Migara's policies

With regard to the foreign currency cash flows coming in from the overseas projects, Migara advised Primal to accumulate the foreign currency without converting it to LKR. Migara believed that keeping foreign currency was beneficial as the LKR was likely to keep depreciating against the USD. Accordingly the foreign currency earnings were accumulated in foreign currency fixed deposits. The same policy was adopted by Minerva Exports as well.

Property prices were increasing at the time and Migara's friends advised him to invest in some property as the prices were expected to go up rapidly. Migara thought it was a good idea and bought two plots of land in close proximity to the office in January 2016.

These two lands were bought in the company's name (Minerva Engineering) through a mortgage with the bank. Migara also advanced money to buy two apartments in his own name and advised Primal to make the installment payments when they fell due and consider them as part of his remuneration.

Primal had to arrange an enhancement of finance facilities from the bank as large volumes of material had to be imported by Minerva Engineering for which letters of credit had to be obtained. Most of these imports were supported by import demand loan facilities, as there were time lags between importing material and receiving progress payments from clients. Further, due to inexperience in handling large projects the timing of material ordering took place earlier than required.

When Primal had cash shortages after utilising all arranged short-term facilities, he used to draw cash advances from the bank against the foreign currency fixed deposits in the form of overdraft facilities. The cash shortages were increasing significantly as there were delays in settlement by the clients as well as dragging on of contracts beyond the originally planned contract duration. These overdrafts accumulated without any significant settlements and reached beyond 90% of the fixed deposits which were continued to be maintained.

A few operational issues

Warehouse at Minerva Engineering

In 2015 the storekeeper resigned saying that the workload was too much as there were large volumes of stocks due to the increase in size and volume of contracts. Primal assigned one of his support staff to overlook the warehouse operations until a new storekeeper was recruited. The new storekeeper who was recruited six months later requested to take a stock count at the time the stocks were handed over to him. When the stock count was carried out it was revealed that there was a shortage of nearly LKR 15 million worth of stocks compared to the IT system.

Primal was very worried as Migara was unhappy with him for not looking after the warehouse properly. When the matter was further investigated it was revealed that project managers and other operational staff had taken out material without system generated requisitions being updated to the system. These material requisitions were also not properly authorised. Primal was unable to verify the actual amount of material issued in respect of each project. It was also not possible to ascertain whether the material quantities issued were in line with the BOQ, as the system had no facility to compare the quantities per the BOQ and the actual amount of material issued.

After updating the system for the available manual issue notes, another stock verification was done. However there was still a shortage of nearly LKR 11 million. There was no one accountable for this shortage and finally it was decided to write it off. Primal advised the new storekeeper to maintain accurate records thereafter. However due to the urgency of performing contract work the project managers and workers continued to take material even after office hours without updating the system. As a result there was a further shortage of LKR 4 million at the year-end stock count on 31 March 2016, and this had to be written off too. With that the new storekeeper also resigned.

Contract modifications

The projects Minerva Engineering was involved since latter part of 2015 were large ones and the project owners often made modifications to the original designs. Majority of these modifications resulted in enhancements and Minerva Engineering performed such extra work upon request. However when such extra work was billed, more often the clients would dispute such extra work bills and refuse to pay. When investigated it was revealed that there were no properly documented requests and agreement addendums for such extra work. The quantity surveying department had simply approved material and labour requests made by the project managers verbally without ensuring the availability of proper documentation. Vijith had also not been able to closely monitor them as he was busy with the two projects in the Maldives.

Migara thought it was the lack of monitoring by the finance division and blamed Primal for the unrecoverable extra work. However after Primal explained that it was not his responsibility to authorise resource allocations based on the proper BOQ and agreement, and that it was in fact the responsibility of the quantity surveying department, Migara asked the chief quantity surveyor to resign. Accordingly he resigned but on his last day he told Migara that the project managers and Vijith were pressurising him to issue material as the work had to be performed urgently.

In the two high-rise projects there were delays in performing the work, and as a result Minerva Engineering workers and the subcontracted workers hired had to work overnight in order to complete the work per the time targets. This resulted in the workers working quite a significant amount of overtime. Due to delays and last minute work Minerva Engineering also experienced a lot of wastage at project sites. Primal often had to negotiate with the banks to obtain temporary borrowing facilities to cater to these delays.

Pricing

With the expansion of Minerva Engineering and the setup of Minerva Exports, Migara expected to receive more orders from clients. In order to facilitate the provision of quotations he created a separate tendering department to bid for jobs. In the past Minerva Engineering maintained a success rate of winning tenders in the range of 40% – 50%. However in the recent past it was observed that the success rate had dropped to below 25%. It was also observed that competitors were quoting much lower prices, which led to them being awarded the contracts.

Financial performance and financial position

The financial statements given in Annexures 1 and 2 were prepared by Primal for the chairman and two general managers to review past trends.

Annexure 1

| Minerva Engineering (Pvt) Ltd | | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Statements of Financial Position | | | | | | | |
| As at 31 March | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| | LKR '000 |
| Non-current assets | | | | | | | |
| Property, plant and equipment | 94,155 | 92,208 | 86,364 | 180,630 | 223,673 | 219,694 | 225,194 |
| Investment – Minerva Exports | - | - | - | 30,000 | 30,000 | 30,000 | 30,000 |
| | 94,155 | 92,208 | 86,364 | 210,630 | 253,673 | 249,694 | 255,194 |
| Current assets | | | | | | | |
| Inventories | 80,386 | 102,815 | 109,556 | 84,667 | 103,720 | 180,664 | 174,757 |
| Trade receivables | 27,033 | 68,864 | 108,857 | 144,079 | 114,171 | 142,284 | 147,135 |
| Related party receivables | 299 | 299 | 299 | 20,945 | 23,592 | 69,625 | 75,575 |
| Short-term investments | 1,087 | 2,081 | 1,785 | 3,033 | 12,732 | 75,747 | 88,320 |
| | 108,805 | 174,059 | 220,497 | 252,724 | 254,215 | 468,320 | 485,787 |
| Total assets | 202,960 | 266,267 | 306,861 | 463,354 | 507,888 | 718,014 | 740,981 |
| Equity and liabilities | | | | | | | |
| Stated capital | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Revaluation reserve | - | - | - | 78,163 | 78,163 | 78,163 | 90,223 |
| Retained earnings | 51,223 | 53,208 | 63,456 | 87,415 | 98,837 | 106,087 | 105,253 |
| Total equity | 52,023 | 54,008 | 64,256 | 166,378 | 177,800 | 185,050 | 196,276 |
| Non-current liabilities | 33,640 | 45,416 | 47,016 | 51,029 | 52,061 | 33,491 | 129,575 |
| | 33,640 | 45,416 | 47,016 | 51,029 | 52,061 | 33,491 | 129,575 |
| Current liabilities | | | | | | | |
| Trade payables | 43,394 | 63,235 | 88,762 | 92,924 | 97,457 | 146,210 | 103,890 |
| Short-term borrowings | 73,903 | 103,608 | 106,827 | 153,023 | 180,570 | 353,263 | 311,240 |
| | 117,297 | 166,843 | 195,589 | 245,947 | 278,027 | 499,473 | 415,130 |
| Total equity and liabilities | 202,960 | 266,267 | 306,861 | 463,354 | 507,888 | 718,014 | 740,981 |

Note: Non-current liabilities largely consist of non-current portion of interest bearing borrowings.

Annexure 2

| Minerva Engineering (Pvt) Ltd | | | | | | | |
|--------------------------------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|
| Statements of Profit or Loss | | | | | | | |
| For the year ended 31 March | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| | LKR '000 | LKR '000 | LKR '000 | LKR '000 | LKR '000 | LKR '000 | LKR '000 |
| Turnover | 166,385 | 259,652 | 336,858 | 448,559 | 389,228 | 507,638 | 627,020 |
| Cost of sales | (123,085) | (188,905) | (243,807) | (342,325) | (285,111) | (376,929) | (463,995) |
| Gross profit | 43,300 | 70,747 | 93,051 | 106,234 | 104,117 | 130,709 | 163,025 |
| Other income | 1,118 | 1,382 | 2,555 | 6,541 | 7,290 | 8,012 | 15,027 |
| Administrative expenses | (17,621) | (28,017) | (34,937) | (41,507) | (48,685) | (55,596) | (66,551) |
| Selling and distribution expenses | (13,496) | (23,376) | (26,870) | (25,630) | (34,721) | (45,560) | (56,230) |
| Operating profit | 13,301 | 20,736 | 33,799 | 45,638 | 28,001 | 37,565 | 55,271 |
| Finance cost | (11,661) | (17,838) | (21,637) | (17,388) | (13,725) | (27,769) | (56,105) |
| Profit/(loss) before tax | 1,640 | 2,898 | 12,162 | 28,250 | 14,276 | 9,796 | (834) |
| Tax expense | (681) | (913) | (1,914) | (4,291) | (2,854) | (2,546) | - |
| Profit/(loss) after tax | 959 | 1,985 | 10,248 | 23,959 | 11,422 | 7,250 | (834) |