

ENGGEN 302: Engineering Management, 2003

Assignment 1: SWOT Analysis

Complete this answer form (pages 1 & 2), print out and submit to the SSS by 12.00 noon on Friday 4th April. Complete each box with a succinct description of the appropriate factor. You will be marked on the validity of your factor selection, clarity of your explanation and understanding of the terms 'Strength', 'Weakness', 'Opportunity', and 'Threat' in the context of a SWOT analysis.

NOTE: Only one paragraph (say three or four sentences is required in each box). This is meant to be an 'Executive Summary' only. You will lose marks if your answers exceed this criterion.

Family Name	First Name	I/D No	Tut. Group
Mabotuwana	Thusitha	9790416	1A

Name and Address of Company Analysed

Rakon Limited, One Pacific Rise, Mt Wellington, Auckland, New Zealand

Company's Main Activity

Rakon limited is a leading manufacturer of high precision crystals and oscillators. These high precision, high stability crystals and oscillators along with Temperature Compensated Crystal Oscillators (TCXOs) are supplied mainly for the use in mobile telephones and GPS applications. Major customers include Motorola, IBM, Ericsson, Samsung and Hewlett Packard.

Analysis

Strength - 1

Founded in 1967, Rakon Limited has been in the industry for over 35 years, thus has been able to establish its brand name while gaining customer confidence and trust. The company has a wide range of products and customers and supplies about 65% of the world's high precision GPS oscillators. Also Rakon has been accredited with TS16949 Standards (similar to ISO standards) which guarantees Rakon products by International Standards.	Mark
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Strength - 2

Rakon Limited has the ability to manufacture large volumes of crystals and oscillators with very high frequency and temperature stability and quality. The company's got many inhouse, high-tech, automated processes which are designed and operated by well-trained, highly skilled personnel. Rakon also offers a lot of unique tests to maintain and guarantee its products' quality. The Microjump Test and the Phase Noise Test are exemplary.	Mark
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Weakness -1

The main weakness of Rakon can be seen as not delivering customer products on time, hence not meeting customer deadlines. Reasons for this include lack of modern management practices, poor human resource management and poor production planning by Senior Management. Too many personnel are involved in the same task without proper coordination, thus leading to conflicts in individual responsibilities.	Mark
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Weakness -2

Some of the products supplied to customers appear to be faulty or considerably deviated from the product specifications. Some of such problems are frequency being way off, failure to properly compensate for temperature and surface mounted components falling off during delivery. Due to lack of study and research on GPS oscillators, cropping up of new, unknown problems has also become quite frequent.	Mark
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Opportunity - 1

<p>At present Rakon supplies crystals and oscillators mainly for the use in mobile telephones and GPS applications. Bluetooth technology, relatively a new concept uniquely allowing all kinds of products to interconnect themselves automatically into ad-hoc or permanent Wireless Local Area Networks and share voice and data over a 10 - 100 meter radius and crystal filter technology are other areas Rakon can actively get involved in. Another great opportunity the Company's got is supplying Voltage Controlled Crystal Oscillators to the mobile telephone industry instead of merely supplying TCXOs and IT crystals which are currently being manufactured and supplied on a large scale.</p>	<p>Mark</p>
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Opportunity - 2

<p>Although a lot of high-tech automated processes are used in the manufacturing process, a considerable amount of qualification testing and assembly are done manually. By introducing automated systems for quality control, production, assembly and qualification testing, accuracy and reliability of Rakon products can be further improved. This in turn will reduce the number of defective units produced and supplied, help the company meet customer deadlines due to more efficient production processes and also increase company turnover.</p>	<p>Mark</p>
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Threat - 1

<p>The main threat Rakon's got is production and supply of cheaper crystals and oscillators by competitors. This has become a factor decreasing Rakon sales as many small and medium scale companies find the prices too high to afford, although quality is at its best. With the expansion of these companies along with technologies which do not require very high precision (unlike GPS crystals and oscillators) there is a possibility of Rakon losing a considerable amount of market share it's managed to establish over the last three decades.</p>	<p>Mark</p>
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Threat - 2

<p>Rakon's main customers are United States based, hence the company deals in US Dollars. Therefore fluctuation in the exchange rate has a great impact on Rakon's turnover. For example, Rakon recorded a 10% loss in 2002 due to appreciation of the NZ Dollar against the US Dollar.</p>	<p>Mark</p>
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Conclusion

<p>Rakon has established its brand name as a leading manufacturer of high precision crystals and oscillators, but has the potential to further improve on its market share by reducing cost per unit, practising modern management techniques, adopting aggressive marketing strategies in the world market and by further improving quality of products. The company could be better-off with dealing in NZ Dollars than in US, since most costs are incurred in local currency. It is finally recommended that the Senior Management of Rakon try to explore new areas the Company can move into, apart from merely targetting the mobile telephone industry and GPS applications.</p>	<p>Mark</p>
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References

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