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RESEARCH REPORT

on

Jewellery Manufacture

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Introduction

Because of the high cost of raw materials in the manufacture of precious jewellery, it is working-capital intensive. It also depends on the availability of skilled and semi-skilled employees. The production of chain is highly mechanised and is also therefore machinery-capital intensive.

We have found it particularly difficult to glean information from participants in this industry and presume it is because of the intense competition which exists and the creative nature of the products.

There are no manufacturers not under the control of directors, and seemingly only one where there is a significant outside shareholder and that is OroAfrica (Pty) Ltd in which AngloGold has a 25% interest. This, coupled with the sparse information available from the industry, has resulted in our not including an organogram with this report.

Chain production is highly mechanised, with gold and gold alloys drawn into a thick rope and then reduced to various diameters by rolling machines. The sized rope appropriate to the finished product is then fed into automatic chain-making machines and finished to specification. Finally, the chain is cut to length and the clasp soldered to the chain.

In the larger manufacturing facilities, moulded items of jewellery are designed digitally on the screen by highly skilled designers using a Computer Aided Design programme. The design is transmitted to an automatic modelling machine, which produces the piece in wax.

The wax model is then attached to a 'tree' with other models and the whole, cast in plaster of paris. Gold is then poured into the resultant mould. The individual pieces then stripped off the 'tree' and chemically and mechanically finished.

In smaller organisations, the wax model is produced by the designer by hand.

This report covers precious jewellery only, as costume jewellery is largely imported from the east.

State of the Industry

A startling and disturbing feature of the jewellery manufacturing industry in South Africa, is that although the country produces 25% of the world's precious metals and stones, it only manufactures 0.5% of the world's jewellery.

There have been many initiatives to counter this imbalance and although current discussions are promising, the magnitude of the interventions needed make it a slow process.

The main reasons for this low output are:

- ❖ The financing of gold purchases by jewellery manufacturers is out of step with other jewellery-manufacturing nations, resulting in uncompetitively high raw material costs – albeit in a country where the raw materials abound.
- ❖ A jeweller either pays cash for gold or buys it on credit. In the latter case, the lender doesn't regard the gold itself as security as it is virtually 'money' and the borrower could disappear with it. He therefore demands security of 120% of the value of the gold, in addition to a negotiated interest rate.

Thus, the manufacturer's capital requirement must include the total cost of his raw material, whether he buys the material outright or on credit.

In successful jewellery-manufacturing nations such as Italy, India, Turkey and China, materials financing schemes are in place.

- ❖ VAT is payable on raw material purchases and is not recoverable until the final product is either sold or exported and thus has to be financed by the manufacturer. Diamond processing countries like Israel either zero-rate raw materials or, in the case of Belgium, introduce a VAT-deferred system.
- ❖ There is no bullion market – and no dollar-based accounts - in South Africa, and manufacturers have therefore to bear the vicissitudes of foreign exchange volatility.

A secure "Gold Zone" was proposed five years ago and land adjacent to the Rand Refinery was identified, and, indeed, the Alistair Mair factory was built there, but, as yet, there has been no other significant development.

- ❖ There is no central database on basic statistics or the performance of the industry.

Not only are major interventions required by the State, but the artistic talent of the jeweller quite naturally leads to participants jealously guarding any information that could be used by their competitors - particularly designs and techniques. As a result, it is difficult to organise the industry into a cohesive whole to compete on the world market.

The local market is small and only a well-organised united approach with the relevant departments in Government to attend to the problems outlined above, will result in any significant expansion.

This is a great pity, as there is enormous potential for employment and wealth generation in the industry. As far back as 1995, the then Minister of Mineral and Energy Affairs stated: "If our local industry could expand to using 100 tons of gold annually [*it presently uses 12/14 tons – author*] with an average added value of 25%, it would earn R1000 million in foreign exchange and create 50 000 jobs. Additional jobs would be created in marketing, sales and

distribution. The industry would be ideally placed to benefit from the growing number of tourists coming to South Africa.”

Kaiser Associates, a firm of management and market consultants, was asked to investigate the industry with the objective of recommending ways of improving its efficiency and widening its markets. The substance of their August 2002 report is summarised in Annexure 1.

Competitiveness

There are more than 300 jewellery manufacturers in South Africa, 95% of which are small, employing less than 10 people. The bigger ones employ up to 250 employees.

The barrier to entry for new manufacturing jewellers is high because of the almost prohibitive costs of financing raw materials.

Whereas possession of the required skills has been a barrier to entry previously, in the last five years many institutions have incorporated jewellery courses in their curricula, and there now appears to be an excess of skilled people.

A measure of the size of a jewellery manufacturer is probably the amount of gold used per annum. The barrier to entry for a larger manufacturer is the capital cost of the factory. For instance the capital cost of a factory beneficiating 2 tons of gold per annum – but excluding chain-making – is approximately R11 million.

Chains are essentially a low-margin product and sold – almost irrespective of design –by weight on a cost of gold content plus a very small margin. The international chain competition is immense, and the additional capital cost of chain-making machinery substantial.

Corporate Actions

There is very little corporate action in the industry with only Silmar SA of Italy taking a 51% interest in Silmar South Africa and Anglogold Ltd buying a 25% interest in OroAfrica (Pty) Ltd of Cape Town. In addition there have been a number of joint ventures with foreign companies, principally Italian.

Size of the Industry

The industry can be measured in terms of turnover, gold beneficiated or number of employees, and the estimates we have gleaned for the South African jewellery manufacturing industry of these are: R1.2 billion turnover (wholesale excluding diamonds), 13/14 tons of gold beneficiated and 4000 employees.

The biggest producer is OroAfrica (Pty) Ltd who reputedly use 4 tons of gold per annum, with Alan Mair (Pty) Ltd using just under one ton and perhaps 6 others using in excess of half a ton.

Comparatively, India converts 650 tons per annum, Italy 480, China 160, United States 160 and Saudi Arabia 200 tons.

International consumptions of gold jewellery are: India 615 tons per annum, United States 380, China 180 and Saudi Arabia 150 tons.

Black Economic Empowerment

Although the industry has many black employees, we have found no evidence of black equity participation.

Sources and Useful Contacts

The Jewellery Manufacturers Association Tel: (011) 484-7530

www.wesgro.org

www.goldavenue.com

www.cbn.co.za

www.jewellersnetwork.com

Jewellery Council Tel: (011) 880-1713

ANNEXURE 1

The industry commissioned Kaiser Associates to investigate and report on ways to increase the production of and widen the markets for South African jewellery.

Their report published in August 2002 details contained the following recommendations – with notes on progress.

1. Redesign existing organisational structures and create a Support Services Group (SSG).
 - a. The original proposal was that the many localised associations are combined to form a national body. All associations with the exception of the Cape Jewellery Manufacturers Association agreed and the revised structure therefore accommodates a Jewellery Manufacturers Association and a Cape Jewellery Manufacturers Association both reporting to the national Jewellery Council.
 - b. The membership of the Jewellery Council is made up primarily of large manufacturers and this should be changed to include smaller manufacturers as well.
 - c. The SSG's responsibilities should include joint marketing and promotion on an industry level, accessing DTI incentives, technical manufacturing assistance, training and development issues and export assistance. The SSG has been created and a CEO and Head of Training have been appointed.
 - d. The Export Council, which will be serviced by the SSG, was initiated by the top six exporting jewellers and led by OroAfrica, South Africa's largest jewellery manufacturer. Support was sought from OroAfrica, SA Link, Alan Mair Manufacturing, B Miller & Son, David Ungar and Galaxy Jewellers. A Joint Action Group, which is a mini-Export Council was formed in early 2003, with 45 founding jewellery manufacturers from both Cape Town and Johannesburg.
2. Facilitate the creation of Export Marketing Groups (EMG's) combining manufacturers into export groups to leverage government assistance and to create synergies in manufacturing and design capacity.
3. Create a cohesive South African Brand of jewellery:
 - a. There is a global trend to branding of jewellery and South Africa needs to follow suit and perhaps export under recognisable South African brands. eg

“Suncut” and “born in Africa” using platforms such as trade fairs, joint marketing initiatives and “Proudly South Africa”.

4. Work with the Department of Trade & Industry to tailor the industry and create greater access to incentive schemes.
 - a. The financing of the purchase of precious metals and stones needs attention as their cost represents 70% of the final product (diamonds 90%). Furthermore the VAT which is payable on purchase is only recoverable at sale or export of the final product and has to be funded during manufacture. With no dollar account facilities available, manufacturers are at the mercy of currency volatility.
 - b. The DTI, in conjunction with the industry, should develop procedures and priorities for the various stakeholders in the industry and introduce incentives for design technologies and training.
5. Foster links between manufacturers and creative jewelers:
 - a. Innovation in design is an essential part of the industry and it is suggested that a closer link should be established between the creative designers and the larger manufacturers, particularly in the field of Africa branding awareness design.
6. Use trade shows as a platform for market entry.
7. Develop an internationally recognised quality assurance system.
8. Facilitate the creation of a dedicated training structure.
9. Conduct a strategic analysis of the polished diamonds market opportunities in SA.