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Star Furniture Manufacturers Ltd.

Report of D. Tweedie

August 1983

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Star Furniture Manufactures Ltd.

Report of Investigation carried out by D.Tweedie, August 1983.

Introduction

This report is the result of a visit to Lusaka made by D.Tweedie between 1st and 15th August 1983 on instructions from the ANC Treasury to look at all aspects of the Star Furniture project and report.

A number of visits were paid to the factory; records examined; and a series of interviews carried out with members of the Treasury, Star management, and comrades presently engaged in writing up Star's accounts. Three formal meetings were held using the rough draft of this report as an agenda, at which there was extensive discussion. The final session was attended by the Treasurer-General.

The attempt has been made to find, wherever possible, a consensus of opinion about the best way forward for Star from those with experience of Star's problems over a long period of time. It is felt that, in forming plans for improvements at Star, due consideration should be given to what is in existence, in order to build on that.

It is the achievement of the comrades at Star that, in spite of the deficiencies described in this report, they have maintained the business as a going concern employing 33 people. There is some evidence (see Appendix I) that turnover has increased in the four years to 31st December 1983, and Star's account with the Treasury maintained at a steady level, though the current year may show a down turn. These apparent trends cannot be confirmed, however, until full accounts have been prepared.

Treasury Draft Guidelines on Project Management.

This report is concerned with the specific problems of Star Furniture. Its recommendations are intended to fall within the principles of the Guidelines (Appendix II).

Structure and Aims of the Star Furniture Project.

Star Furniture Manufacturers was established in 1967 with a fund of £58.

The present buildings cover some 1,200 square metres on a walled plot of roughly twice that area. The business owns 14 stationary woodworking

machines and two trucks.

The business is wholly owned by the ANC and the management is responsible to the Treasurer-General.

The Treasury has a Projects Department which up to the present has not been closely involved with Star, which has in practice dealt with Cde. Kay Moonsamy, or the T.G. himself. The Projects Department has, however, been involved in the discussions leading to this report, and it would seem appropriate that this involvement now be maintained via the reporting procedure outlined in Section 2 of this report. This would not affect the general principle that Star is responsible to the T.G.

The aims of Star Furniture Manufacturers are:

- 1) To generate funds for the movement.
- 2) To provide the movement with its needs in the way of furniture.
- 3) To provide worthwhile and creative employment, training, and management experience to ANC comrades.

Section 2. Reporting.

(i)

Introduction

There has been no regular system of reporting between the management of Star and those to whom they are responsible, namely the Treasury. The amount of recorded discussion and correspondence over the period of Star's existence is almost negligible.

The result of this may be described in three parts:

- 1) The Treasury is unable to find out what is happening at Star.
- 2) Star management is unable to find anyone in the Treasury who knows anything about Star's current problems.
- 3) No regular, systematic and recorded review is taking place of Star's performance, or of the Treasury's efforts on Star's behalf.

Monthly Reports

During the discussions held while this report was being prepared, it was agreed that a meeting would take place monthly between representatives of the Treasury and of Star management, regularly each month before the end of the month. This meeting will be chaired by a Treasury representative and reports will be presented on certain regular matters, and also on current problems.

Management will normally be expected to present in summary form:

- 1) A Receipts and Payments Account including Petty Cash transactions, reconciled with the latest available Bank Statement.
- 2) Amount of Purchases and Sales in the month.
- 3) Total Wages for the month (including incentive and ZNPF).
- 4) Debtors and Creditors at month end.
- 5) Production during the month including items for stock and internal use.

Section 2, Reporting, continued.

(ii)

6) Such other information as may be available and relevant, or required by the Treasury.

7) A report of action on decisions taken at previous meetings or in correspondence.

It has to be born in mind that the books of account are not at present up to date (see Section 4, Accounting). This means that some information is difficult to prepare at present. When the accounts are up to date, more detailed information will be available, and the list of routine monthly figures may be extended.

The regular information as per the above list should be produced and minuted even if a representative of the Treasury is not able to attend any particular meeting.

The Treasury, for its part, will report each month on:

1) The progress of efforts to obtain equipment and/or funds from donors.

2) Any other matters upon which they have undertaken to act at previous meetings or in correspondence.

All this monthly information should be filed as monthly reports and any other information raised at meetings and especially any decisions taken, recorded in a minute book.

Important business correspondence with the Treasury should be in writing and important decisions reached in verbal or telephone conversations, confirmed in writing.

Introduction

Existing Production Control Methods

At present, budgetted production times are estimated according to the judgement and experience of the management personnel. Pricing is based on these estimates. Management follows up by physical examination and verbal reports from the General Foreman and Supervisors.

Overall production targets are conceived in terms of gaining a total invoice figure for the month, currently K.30,000 .

Some disadvantages of this approach are:

- 1) The estimates are not derived from accurate historical data, nor can the results be checked against the estimates, because overall records of production times are not kept.
- 2) Production targets are confused with Sales targets.
- 3) Although it would seem that time is saved by not keeping detailed records, in fact senior management remains tied down by the necessity of overseeing every detail of the process, because routines and norms are not established.
- 4) Without the active presence of one of two particular individuals, there is no means of pricing a job. These comrades must also cope with all other problems and are overworked.

General Considerations

The production method at Star may be described as batch production as opposed to individual manufacture on the one hand or mass production on the other.

Production is grouped into batches of manageable size varying from ten or less items to one hundred or more of smaller items. Batches will normally correspond to a particular order or part order.

Recommendation

It is recommended that in order to control the production of each

Recommendation, continued

Batch, documents are prepared for each batch, to be known as the Job Sheet and the Job Record, and that each batch is given a reference number known as the Job Number.

Further Considerations

Costing

A costing system relies on the keeping of accurate historical records, in order to:

- 1) Provide a basis for predicting direct costs.
- 2) Provide precise information on the percentage which must be added on to direct costs to cover overhead expenses and lost time.
- 3) Provide means of checking whether predicted costs have been achieved or exceeded.

Overall planning

It is likewise necessary to plan overall performance of the factory in terms of physical production, and this also requires historical information for similar reasons, namely:

- 1) To ensure that each worker is employed as far as possible in productive work at all times.
- 2) To ensure that machines are being used to the maximum possible extent.
- 3) To identify bottlenecks and inefficiencies caused by lack of machine capacity in particular sections.
- 4) To identify areas of over- or under- staffing.
- 5) To identify over-costly operations in order that these can be eliminated by altering methods or designs.

General Requirements of Batch Control Documents

Job Sheet

The Job Sheet is prepared in advance of the commencement of work and must serve to:

- 1) Give each batch its own Job Number.
- 2) Record instructions to operatives, primarily the Cutting List and machining instructions.
- 3) Record cross references from orders or contracts and from drawings.
- 4) Provide a record of production details for future reference where repeat or similar orders are required.
- 5) Provide a source for production statistics.

Job Record

The Job Record is a form which is filled in during the progress of a job through the factory and provides:

- 1) Names of operatives involved at each stage.
- 2) Dates of commencement and completion of each stage, and signatures of those responsible for checking completion and quality.
- 3) Cross reference to materials requisitions.
- 4) Cross reference to invoice numbers or stock card numbers.
- 5) A source for preparing lists at any time of work in progress, and such progress sheets, books, schedules and charts as management may require.

General Requirements of Batch Control Documents, continued

Other Documents

Stock Control

Under Cde. Kaya's initiative and direction, stock control documents are being introduced (see also Sec.4, Accounting). These will consist of:

1) Goods Received Note (GRN) recording receipt of goods, details, date, suppliers' name and invoice number, signature of official receiving the goods, and a reference number.

2) Materials Requisitions recording date, job number, details and quantities, and authorising signature of a designated official.

3) Stock Cards recording stock in by reference to GRN and out by reference to Requisition.

Time Sheets could be introduced at a later date to record time spent by each employee on his different tasks during the day, but not before the other documents have become familiar within the factory.

For Draft Job Sheet and Job Record forms, and explanatory notes, see Appendices III and IV.

Introduction

The importance of keeping proper books of account and of having up-to-date Profit and Loss Accounts and Balance Sheets prepared cannot be over-emphasised.

Without proper accounting, (leaving aside the obvious possibility of misappropriation of funds), there is no means of ensuring that funds and assets employed in the business are generating profit or not. In order to run a profitable business, loss-making operations must be identified and corrected or eliminated immediately.

Given that books and records have been kept at Star (but see point (1) below) and that qualified personnel are now engaged in this work, there seems to be no reason why Star's accounts cannot be put in order in the very near future and kept that way.

Notes and Points Arising

1) The last full set of accounts is for the year ended 31st December 1978.

Books in existence, with indication of the reported state of each at the time of this report, are as follows:

Cash Book	up to	part 1983
Petty Cash Book	" "	part 1983
General Ledger	" "	Dec. 1979
Sales Journal	" "	July 1983
Debtors' Ledger	" "	Dec. 1980
Purchases Journal	" "	Dec. 1979 *
Creditors' Ledger	" "	Dec. 1979 *
Wages Book	" "	Up to date

* Not now in use as no credit purchases reportedly taking place.

2) Cde. Kaya Vanda, under the direction of Cde. Themba, is currently engaged in the task of writing up the books and preparing final accounts for the years 1979, 1980, 1981 and 1982. This report draws on their information and advice. It is vital for Star that their work is continued until complete and indeed until the books are up to date and the proposed stock record system is being and working properly.

3) Cde. Kaya has taken physical stock at 30.6.83 and drafted Goods Received Note, Materials Requisition, and Stock Card forms (see Section 3, Production Control) and is going to establish a Fixed Assets Register.

Notes and Points Arising, continued

4) Expenditure through Petty Cash is running at a level of K.2,000-K.4,000 per month. This is due to the fact that some suppliers are paid in cash including suppliers of timber and petrol, and other motor expenses. This can and should be reduced, in the first place by drawing cheques for exact amounts of cash required to pay rather than drawing from a float, and secondly by improving confidence among suppliers until they are prepared to accept our cheques.

5) Star's account with the Treasury is a matter of interest to both parties and needs to be brought up to date as a matter of priority. Goods taken by the movement should be charged at normal rates and paid for promptly in order not to give Star cash flow problems. Contributions from Star to the movement are expected.

It is to be hoped that agreement will be reached on figures for Star's current account with the Treasury and its capital account following the completion of Cdes. Themba and Kaya's work as also on the question of writing off specific bad and doubtful debts, and the valuation of Fixed Assets.

6) All concerned feel that it would be advisable to appoint a book-keeper for Star, to ensure that a backlog like the present one does not happen again.

Introduction

This section contains a list of all personnel at the factory, followed by some suggestions as to how to improve job description, division of labour and so forth.

PersonnelANC
Management

Manager

Dups

Assistant Manager

Mac Futha

Other

Upholsterer/Driver

Marema

Driver

Ngwenya

Part time

General

Les Martin

Maintainance

Luxman

EmployeesMachine shop

General Foreman

Isaac Phiri

Storeman

Davison Siame

Supervisor

Basilya Chupa

Machinist

Bistone Zulu

Semi-skilled (3)

Shepherd Siamukuku

Peter Mbayuma

Enoch Zulu

Learners (2)

Severiano Daka

Darlington Mwelwa

Helpers (2)

Bornwell Chisompa

Meldon Simusokwe

Joiners' Shop

Supervisor

Ignitius Lungu

Full Carpenters (3)

Golden Kazanene

Boniface Mahongo

Stephen Tembo

Semi-skilled

Clement Chapinda

Learner

Victor Milupi

Sprayer

Sitali Mbalemweshi

Trainee Sprayer

Staff Zulu

Upholsterer

Abel Phiri

Labourers (7) Supervisor: Staiwell Mwakuchila. Others: Felix Kateule, Joel Lundu, Field Mwape, Simon Ngabi, Boyd Simovwe, Special Tembo.

Cook: George Mambo

Watchman: Joshua Namonda.

Notes on Management Structure

The main functions of Purchasing, Production, Marketing, Finance and Accountanting, and Personnel, are divided between Cdes Dups & Mac Futha.

The collective memory and experience of the four comrades involved full time at Star constitutes the businesses' organisational backbone. Until such time as:

1) New management personnel are grafted on to this core and have time to absorb that collective experience and,

2) Adequate production and financial records and controls are in being,

the business will depend on these comrades, especially Dups and Mac, for continuity and leadership.

Star is therefore in a vulnerable position should one of these comrades for whatever reason become unavailable for work.

Further, it must be noted that these comrades are overburdened and are unable to meet all the demands placed upon them.

It would be to say the least prudent and wise, to enlarge this core of leadership. This would enable a better division of functions and allow scope for more intensive management and for expansion. The specific need for a book-keeper has been raised in Sec. 4 (Accounting).

Notes on Manual Operatives

Star being a machine-based operation, the aim must be to reduce the amount of skilled hand-tool operations to a minimum in order to reach optimum profitability. Apart from the small number of skilled people required to set up new types of machine operation, most of the work should be of a repetitive, semi-skilled nature. Therefore there does not seem to be a case for employing more skilled people except in the occasional key position. For example at the present time a skilled grinding and sharpening operative is required (as soon as equipment has been acquired for this purpose).

Work on any particular job at Star is divided up among the whole work-force, as opposed to giving the whole job to say, a team of two. This is a relatively advanced form of production. It does however demand a high level of organisation to ensure maintainance of quality by all concerned and to ensure that all operatives are continuously in work.

Note on Outside Jobs (Fitting)

Site work has a different pattern of organisation to factory work and to undertake within the same organisation presents difficulties. This has apparently also been Star's experience. However, the movement relies on Star to fulfill its needs of this kind and Star is therefore obliged to do this kind of work from time to time. It might be to advantage to develop a regular team for such jobs.

It must be a strict rule that such outside workers only do what the factory instructs them to do.

Introduction

Having machinery which is

- 1) In good working order and complete with all necessary cutting tools,
- and 2) Capable of doing the required operations,

is crucial to the whole economic basis of Star's operation.

Without substantial improvement in the mechanical assets of Star, there is little hope of maintaining production at the present level for long, let alone getting the improvement in quality and productivity which will be necessary for the business to take off into profitability.

As far as possible, all cutting operations should be carried out on machinery leaving assembly as a semi-skilled operation. The higher the content of skilled hand-tool labour in the finished article, the higher the cost will be.

The present machinery is all manually fed and no machine is able to do more than one function at a single pass. It would be most desirable to have at least one machine which is automatically fed and capable of machining four sides of the timber at a time, i.e. a "four-cutter".

Proper grinding equipment is an essential pre-requisite for the maintenance of cutting tools. Just as apprentice joiners are first taught to sharpen their tools before they are taught to use them, so the tool-grinding facility is the starting point of wood-machining work. The machinery required for this is (1) a universal grinder (for spindle cutters), (2) a planer-knife grinder, (3) a circular- and band-saw sharpener and setting tools and (4) a bandsaw jointer.

The machining operations can be divided into two stages: (1) Formation of the section or profile and (2) Formation of the joints.

For joint formation, there are two mortisers at present, one of which is working, but tenoning is carried out quite laboriously on inappropriate equipment. Tenon formation requires precision and correction of badly-formed pieces is very laborious and costly. The acquisition of a tenoner could allow a quick and substantial improvement in the quality and productivity of the factory's output.

Of the fourteen stationary woodworking machines (see Appendix V), nine are working and two of these nine are in poor condition.

There are few cutting tools and such as there are are in poor condition. There is no designated store for these tools. Such grinding and sharpening as is done is done outside the firm.

Machines have been cannibalised for motors. Others are inoperable for want of tools and/or replacement bearings.

Proposals

1) A detailed description of each machine should be prepared giving all necessary specifications for obtaining spares and tools, for example spindle sizes and speeds, specification and size of belts and bearings. This should be produced in several copies with the originals held in the office, and with copies available at any time an opportunity arises to obtain spare parts or tools.

2) A section of the store should be set aside for storage and maintenance of tools and spare parts. Grinding machinery for saws, spindle cutters and planer knives should be obtained with all appropriate spare grinding wheels and a jointing machine for bandsaw blades.

3) A programme for the rehabilitation of the present machinery and for the selective and progressive addition of new machinery should be worked out along the lines of appendix VI.

Attention should be given to the maintenance of safety guards and equipment on all machinery.

Section 7, Premises

Star occupies approximately 1200 square metres of covered space on a plot about twice that size. Problems are considered under four headings:

1) Roof The pitch of the roof is shallow and the trusses have sagged. This results in rainwater pools forming and serious leakage in the wet season. The iron sheets are however in good condition.

The solution would seem to be to jack up the present trusses, add new intermediate trusses, and support with stanchions at the mid point of the span.

2) Hygiene Mukwa dust is highly irritating. At present there is no collection of the dust from the belt sander. A dust collector should be bought or made up as soon as possible. There is no forced ventilation and poor natural ventilation in the factory. It is agreed that more effort needs to be put into keeping the factory clean.

3) Lighting Natural lighting is poor in the factory and artificial lighting inadequate. Both safety and quality of output depend on good lighting.

The first step to take in solving this problem would seem to be to increase the number of translucent panels in the roof. The drawback to this is that it may create a "greenhouse" effect, overheating the workspace.

In the long run sufficient fluorescent lamps may have to be installed to give independence from natural light.

4) Space The space used by the machines and by the joiners appears adequate. More use could be made of stools and trolleys in the work of moving batches through the factory, from one machine to another. This would make for tidiness, safety, and efficiency.

Secure room is available for material stocks (apart from timber), and for grinding and storage of tools. When production increases there may be difficulty in storing sawn timber and finished goods, and disposing of shavings.

Even at present there is little space for sawn timber. As a result, timber is bought for immediate use. There is no time for seasoning and no buffer stock in case of shortages. It would be very much to Star's advantage if they had space to store and season timber. This could be at another location if necessary. A fenced area of about 1,000 square metres would be ideal.

Stocks of finished goods need not build up if sales are maintained.

Section 8. Design

Current designs are poor but appropriate to the state of the machinery, which is no longer capable of quality or sophistication. There is not a great deal of difference between Star's products and those of an average craftsman working on his own.

While everything produced at Star is in a sense designed, these designs are not kept on file in the form of drawings. This means that the effort put into the design work for each job is lost when the job is finished.

It is recommended that drawings are filed together with a model cutting list and given a reference number. Design development can then take place in the following ways:

- 1) Star's own designs. Prototypes could be produced at regular intervals, say monthly, beginning with Star's traditional lines, such as office desks, wardrobes, chairs and beds.
- 2) Special orders and requirements of customers, and feedback from customers.
- 3) From catalogues, textbooks, magazines, designs built up at Mazimbu, and any other outside sources.
- 4) By copying suitable pieces of furniture belonging to friends &c. or brought from overseas.

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Section 9. Supplies

Introduction

Lack of regular supplies of timber, sheet material, glue, screws, ironmongery, mirrors and similar things, is a recurrent problem.

Discussion produced the following recommendations in respect of this problem:

- 1) Sufficient working capital is kept available so that supplies can be bought when they are available.
- 2) The stock record system outlined in Sections 3 & 4 is implemented and used to monitor stock levels.
- 3) A regular, say six-monthly, supply run is carried out to Botswana and/or Zimbabwe.
- 4) Sufficient management time is given to fulfilling the Purchasing function as defined in the Treasury's draft project guidelines.(Appendix II).

Section 10, Marketing

Most of Star's production is to fulfill orders. These orders are obtained from government, from the private sector (for retailers) and from the movement.

When there are few orders, items are made for stock. This happens rarely.

The question of retailing direct to the public has arisen, but it is considered that this would demand management resources, both in the shop and in the factory, which we do not have.

An intermediate approach would be to have standard lines and prototypes available at the factory for view by customers. When it is found that a particular line is being ordered very regularly, a stock of these items can be built up without risk, to be sold "off the shelf". If and when this business builds up to a good level, the question of opening a retail shop can be opened again.

Section 11, General Conclusions

As an immediate goal, Accounts must be brought up to date. It would be a serious set-back to Star if the comrades presently working on the accounts were to be re-allocated to other work before completing this task. The accounts must be kept up to date, and used to ensure that Star's trading is maintained on a profitable basis.

Secondly, starting now, sustained effort needs to be put in to bringing the business's capital assets, the machinery into proper productive order.

One could assemble twenty artisans with their hand-tools and benches in a building and call it a factory, but there would be little or no profit in such an exercise. The whole basis of Star's operation is the reduction of labour time and the improvement of quality through the use of machinery. This advantage has by now largely disappeared, because of the poor state of the existing machinery, and this is not surprising considering that the last new machine was obtained as long as nine years ago.

A systematic programme is required, both of acquisition of new machinery, and of spares and accessories for the existing machines. This programme will need to be pursued with great energy and persistence and may involve a commitment of money both for purchases and for travel. It will involve the creation of many project outlines for donors, and prolonged negotiation coupled with research.

Finally, systems need to be introduced which will have the overall effect of rendering the business as far as possible self-regulating. These will include production control and stock control documentation, standardisation of designs and methods, and production of monthly statistics. Through better organisation, the tasks of individual personnel can be defined more clearly and made simpler. This will in turn reduce the present heavy dependence on certain experienced individuals and make it much easier to incorporate new personnel into responsible positions. An increase in the number of ANC members involved would seem a necessity in order to maintain the aims and character of the project.

Appendix I

Summary of Receipts and Payments on Trading Account 1979/82.

Notes:

1) "Sales" is the total of Cash Sales plus Receipts from debtors in the year.

2) "Cost of Sales" is the total cash paid for Purchases, Wages, Motor Expenses, Power, and Sales Tax in the year.

3) No account is therefore taken of movements of stock, debtors and creditors and these figures can in no way be regarded as a reliable statement of Gross Profit. They may, however, be considered to give an indication of broad trends. More accurate judgements will have to wait until full sets of accounts are prepared for these years.

	<u>"Sales"</u>	<u>"Cost of Sales"</u>	
1979	53,300.01	69,563.87	(16,263.86)
1980	90,022.27	80,155.49	9,866.68
1981	150,490.55	138,628.26	11,862.29
1982	175,055.56	138,448.30	36,607.26

The corresponding "Sales" figure for the first half of 1983 is K.63,400.13.

Capital Movements

Loans from the ANC in the period amounted to K.33,500.00 and amounts paid to the ANC were K.31,900.00. A loan from SIDA of K.10,000.00 was also received in the period.

APPENDIX II
DRAFT

GUIDELINES ON PROJECT MANAGEMENT.

1 Introduction:

The projects which the organisation is likely to have may be classified into two broad classes, according to the dominant aim behind each project, viz

- (a) Self help projects; and
- (b) Fund raising projects.

Although self help projects are primarily designed to develop certain skills and provide for the consumption needs of the members of the organisation and thereby help conserve the much needed revenue, they are also expected to contribute to the funds of the organisation.

The dominant aim of all fund raising projects set up by the organisation is to generate funds to prosecute the liberation struggle. To this end the choice of what fund raising project should be mounted should be influenced by such considerations as the amount of capital outlay required to start the project; the speed with which this capital may be recouped, and the profitability of the venture. All other things being equal, those fund raising projects which require the least capital, bring in quick returns and are least costly to run should be preferred.

2. Project Management:

Although projects may vary in character and span different sectors of the economy, their management has certain features common to all.

Basically project management entails the performance of the following functions:-

- (a) Purchasing of materials or supplies;
- (b) Production of goods or services;
- (c) Marketing
- (d) Finance and Accounting
- (e) Personnel work.

The separation or combination of these functions within the organisational structure of each project will be determined amongst others by such considerations as the size of the project, the capital involved and the number of people involved in it.

3. Organisational Structure of Projects:

With the foregoing remarks in mind, it is suggested that the following organisational structure be adopted for the following projects:

3. 1. Agricultural Projects:

- (a) Each agricultural project should be headed by a qualified agricultural expert who should be in charge of all production.
- (b) Depending on the diversification of farming operations, the farm manager should be assisted by competent foremen, each in charge of a specified area e.g. crop production, animal husbandry and poultry farming.

- (c) There should be a Financial Controller to head both the Personnel and Finance Functions.
- (d) The purchasing and keeping of stores, as well as the marketing of the produce could, depending on the circumstances, be put under the charge of one person.

3.2. Manufacturing Projects:

- (a) Each manufacturing project should be headed by an expert in the field of manufacture concerned.
- (b) The project head should take charge of production and quality control, and should discharge the duties of the buyer for the project.
- (c) There should be a Storeman in charge of the finished product who should also act as the marketing officer for the project.
- (d) An accountant whose functions should include personnel work should be appointed.

3.3. Retail Projects:

By and large ordinary retail concerns generally do not require special technical skills, and, with the exception of catering concerns like restaurants and cafes, do not have to produce the goods sold.

For these reasons the management of retail projects is much more simpler.

It could conveniently be organised as follows:-

- (a) Make the project head, the Purchasing Officer as well as Storeman.
- (b) Have somebody in charge of marketing and serving. The same person could be in charge of catering.
- (c) In the case of cafes and restaurants there needs be somebody in charge of food preparation.
- (d) A bookkeeper will be needed to complete the outfit.

3.4. Projects Rendering A Service:

Examples are projects rendering artisan piece work, repair jobs etc.

- (a) These should be headed by a skilled operator, who should be the Chief Buyer as well.
- (b) An Additional member of the Management team should be in charge of finance and personnel work.

3.5. Entertainment Projects: Examples are cinema operation, the ~~running~~ of discotheques, record bars, photographic studios etc.

- (a) Where special skill is required, the project should be headed by a skilled operator, otherwise it could be headed by any other competent person.
- (b) He would be assisted by an Administrative Manager/Accountant.

4. Duties of the Various Functions:

The actual combination and vesting of functions in various project personnel will be determined by the exigencies of each case. Head Quarters reserves the right to allocate and apportion responsibilities.

In this section, therefore, we look at the duties of the five basic functions of project management, to wit, purchasing, production, marketing, finance and personnel.

4.1. Purchasing:

- (a) Depending on the size of the project, the Purchasing Function could be divided into two subfunctions
 - (i) Procurement of supplies
 - (ii) Storage.
- (b) The Procurement function could be placed under the charge of the Buyer whose duties should include the following:
 - (i) Procurement of supplies at the most economic prices;
 - (ii) Ensuring that supplies are on hand as and when they are required;
 - (iii) Establishing sound working relations with the suppliers.
- (c) The storage function should be placed under the charge of the storeman whose duties should include the following:-
 - (i) Checking deliveries to ensure that they are of the quality and quantity ordered and are in good condition;
 - (ii) Notifying the Buyer of any shortages, Breakages and leakages.
 - (iii) Issuing supplies to the Production Unit (in the case of Manufacturing projects) or to the Marketing Unit (in the case of retail projects) upon production of proper requisitions.
 - (iv) Taking stock at prescribed intervals and preparing schedules of such stock count.
 - (v) Monitoring the movement of stock under his charge and notifying the Buyer whenever supplies require replenishing.

4.2. Production:

- (a) The Production Department of any project run by the Organisation should be put under the control of the Project Manager.
- (b) It should produce the goods and services of the project with due regard to
 - (i) Quality control;
 - (ii) Prevention or minimisation of wastage;
 - (iii) Deadlines for the execution of orders and contracts.
 - (iv) Safety and Health laws.

APPENDIX II

- 4 -

4.3. Marketing:

The Marketing Officer should,

- (a) Develop markets for the products of his project.
- (b) Control sales by comparing actual sales with budgeted sales, both in terms of output and price.
- (c) Control the level of finished goods to minimise average investment as far as possible.
- (d) Timely inform the Production Department of any unusually large orders placed for the products of the project.
- (e) Ensure that incoming orders are suitably edited and scrutinised for credit status.
- (f) In the case of manufacturing projects, monthly submit a return of orders executed and outstanding as well as the terms of sale.

4.4. Personnel Function:

The duties of the Personnel Officer should include the following:

- (a) Ensuring that the wages and salary rates paid by his project are in accordance with government and organisational policy.
- (b) Ensuring that safety regulations are implemented and maintained throughout the project.
- (c) Recording and analysing the reasons for personnel terminating their services with the project to minimise labour turnover.
- (d) Engaging and employing unskilled labour, and in consultation with the TG's office, vetting applications for skilled and executive appointments.
- (e) Preparing wage records and such other schedules as are required under the Labour laws of the country where his project is.

4.5. The Finance Function:

The duties of the Financial Controller, Accountant or Bookkeeper for any project shall include the following:

- (a) Ensuring that all the financial transactions of the project are recorded in proper books of account. To this end the Financial Controller/Accountant/Bookkeeper shall keep the following books of account:
 - (i) A Cash book
 - (ii) A Petty Cash Book
 - (iii) A Wages Book
 - (iv) A Purchases Journal
 - (v) A Sales Journal
 - (vi) A General Journal
 - (vii) A Ledger

- (viii) A Record Book for daily takings
- (ix) A Register of Fixed Assets.

In addition to the books of account, the Financial Controlled/Accountant Bookkeeper shall keep the following records and vouchers:-

- (i) A Receipt Book
 - (ii) Cash Sales Books unless the Project has a Cash Register
 - (iii) Bank Deposit Books
 - (iv) A Cheque Book
 - (v) An Invoice Book
 - (vi) Petty Cash Vouchers
- (b) Controlling the banking of all monies received by the project. Such monies should be banked daily and intact.
- (c) Ensuring that statutory records are maintained in respect of wages and salaries.
- (d) Monthly presenting to the TG's office his financial report. The financial report should include the following statements:
- (i) A Receipts and Payments Statement
 - (ii) A Monthly Trial Balance.
- (e) Generally managing the financial and assets of the project.

5. Relationship with HQ.

- (a) All projects wherever established, shall be responsible directly to the Treasurer's General Office and shall be accountable to it.
- (b) The funding of any project shall be through the office of the Treasurer General. This implies that no project shall have the power, itself, to approach donors or the public to solicit for financial assistance provided that nothing contained in this paragraph shall be construed as limiting fund raising projects from raising funds from the public in the ordinary course of their business operations.
- (c) All projects shall make a financial contribution to HQ, annually, towards the successful prosecution of the revolution, out of available profits, provided that any cash remittance to HQ will count as a contribution by the project after it has discharged all its liabilities to HQ.
- (d) Monthly, and through the Head of Projects, all project should submit to the Treasurer's General Office reports of their operations.
- (e) The Treasurer General shall have the sole authority for the establishment or dissolution of any project.

Appendix III

Draft Job Sheet Form

(Notes)

1.

NUMBER

2. Item:

Quantity:

3. Order/Contract No.:

Date:

4. Drawing No.:

CUTTING LIST

5. Timber:

6.	<u>Ref.</u>	<u>Description</u>	<u>Ex.</u>	<u>Quantity</u>	<u>Length</u>	<u>Width</u>	<u>Thickness</u>
----	-------------	--------------------	------------	-----------------	---------------	--------------	------------------

(30+ lines, ruled in columns)

8. Total Pieces:

==

MACHINING INSTRUCTIONS

9. Planer/Thicknesser Piece Nos.:

Crosscut " "

Circular Saw " "

10.	Spindle:	<u>Operation</u>	<u>Piece Nos.</u>	<u>Sketch</u>
-----	----------	------------------	-------------------	---------------

(5+ lines ruled in columns)

11. Other Machines:

JOINERY INSTRUCTIONS

12. Assembly and Glueing:

13. Special Instructions:

14. Sanding:

15. Finish:

1. Number. Each Job Sheet will have a distinct number preferably pre-printed on the forms.
2. Item. This records the type and quantity of goods being made.
3. Order/Contract. This refers to the order from the customer, and date.
4. Drawing Number. Reference to drawing file.
5. Timber. Types of timber to be used.
6. Reference and description. Each line has a number starting from 1. Each line is for a different piece e.g. top rail, middle rail, bottom rail, L.H.style, R.H. style, muntin, and so on as appropriate to the job.
7. As many lines as possible here.
8. Total pieces. This figure may be used statistically as a measure of production volume on a monthly basis.
9. Piece Nos. Against each machine are recorded the cutting list reference numbers of the pieces requiring work on that machine.
10. Spindle. In the case of the spindle, several lines are required, so that each operation e.g. grooving, moulding, tenoning &c, may be included. Where sketches or notes are required this is recorded in the sketch column. Such notes or sketches will be clipped to the job sheet and give details of such things as shoulder-to-shoulder measurements of tenoned pieces, depth and width of grooves, types of moulding, and so on.
11. Space is left here for occasional operations with other machines.
12. To 15. Joinery Instructions. Space is given for particular assembly instructions especially where hand-tool operations are required.

Appendix IV

Draft Job Record Form

(Notes)

MACHINE SHOP

1. Timber. Requisition Number:

Date:

2. Operator

Date Commenced

Date Completed

Foreman's Signature

(20 lines, ruled in columns)

3. Total Completion Date:

Signed:

4. Packed by:

Date:

Signed:

JOINERS SHOP

5. Received by (Foreman):

Date:

6. Materials Requisition Number:

Date:

7. Operator

Date Commenced

Date Completed

Foreman's Signature

(20 lines, ruled in columns)

Sanding; Operator:

Date:

Finish; Operator:

Date:

Other; Operator:

Date:

Total Completion Date:

Foreman's Signature:

For Office Use Only:

8. Invoice/Stock Card Number:

Date:

1. Timber Issued. Reference is given here to all timber requisitions made to this job number.
2. All operator's names working on the job number should be recorded here with relevant dates and foreman's initial.
3. The Foreman should check after total completion that all is in order according to cutting list and sign, with date.
4. Packing. Before leaving the machine shop, the full number of pieces for each item of furniture are packed together and tied up with twine.
5. When the job is handed over to the joiner's shop, the joiners' foreman signs here.
6. Reference is recorded here to all requisitions for materials issued to this job number while in the joiners' shop.
7. As with machine shop.
8. Each Job completed should immediately be invoiced or booked into finished goods stock, and recorded here. If internal work for the factory is carried out, e.g. shelving, pallets, stools &c., this should first be booked as stock and subsequently transferred to fixed assets.

General Rules and Procedures for Job Sheets and Job Records

- 1) Job Sheet forms should preferably be produced in triplicate, in a book in which the bottom copy will remain.
- 2) A sufficient quantity of clipboards must be obtained to which each top copy will be attached together with the Schedule and any sketches or notes necessary. This clip-board will follow the job round the factory and be handed back to the office on completion. Hooks are kept at the foreman's station for the safe-keeping of clip-boards overnight.
- 3) The second copy may be filed on the Customer's file.
- 4) A bound book will be kept, recording the job numbers, date of commencement and completion of work, total pieces and invoice or stock card number, in columns. Headings are: Job No., Order No., Item, Quantity, Drawing No., Total pieces, Date in, Date out, Invoice/Stock Card No., Date. From this book it will be possible to extract at any time a list of work in progress and production figures for any given period.
- 5) The most important rule is that no work of any kind is started without a Job Sheet.
6. Similarly, as far as possible, all workers should be allocated to a specific job number at all times.

Type

Radial Arm Crosscut Saw

Combination Planer/Thicknaesser

Slot Mortiser

Bandsaw 50mm

*

Bandsaw 15mm

Overhead Router

*

Spindle Moulder 18mm

*

Spindle Moulder 30mm

Belt Sander

Planer/Thicknesser

Disk/Bobbin Sander

*

Saw bench, small

Saw bench, large

Hollow chisel mortiser

*

Portable compressor

Door press

* Not working

Appendix VI Draft Programme for rehabilitation of and Additions to
Machinery

I. Urgent for purchase

- 1) Tungsten Carbide Tipped circular Saw blades
- 2) New shaft for spindle moulder
- 3) Spindle cutter blanks; jointing cutter; Leitz-type block with spare cutters; dado set (4 cutters + wobble saw)
- 4) Spares for slot mortiser, hollow chisel mortiser, bandsaw, router and planer/thicknesser
- 5) Dust hopper for belt sander.

N.B. It has been agreed that certain essential items can be purchased in Britain.

II. Also Urgent. To be requested from donors

- 1) Universal Grinding Machine with all types of spare grinding stones
- 2) Saw sharpening machine (circular and band saws) with full set of spare grinding stones.
- 3) Saw setting machinery for band and circular saws.
- 4) Planer knife grinder.
- 5) Bandsaw jointing apparatus
- 6) Double-end tenoner
- 7) Upholstery sewing machine
- 8) Pillar drill

Appendix VI, continued

III Machinery to be ordered now

- 1) Four-cutter
- 2) Thicknesser
- 3) Chain mortiser
- 4) Spindle moulder with all accessories and tools
- 5) Lathe with various chucks and rests including template-following guide for reproduction and repetition.

These machines are required to complement the existing machinery and to raise capacity.

IV To be acquired if possible in the medium term

- 1) Band saw for log conversion (portable) with related equipment
- 2) Straight line edger
- 3) Louvre-making machine
- 4) Multiple boring jig.
- 5) Nailing machine

V Portable Tools - Required Now

- 1) Mitre guillotine
- 2) Hand routers, belt sanders, jig saws, circular saws, and drills, with bits, spare saw blades and sandpaper.
- 3) H and tools
- 4) Glue rollers.

Appendix VII

Draft Project Document

Star Furniture Manufacturers Limited

This factory situated in Lusaka was established in 1967 by the ANC with a fund of £58. Its aims are to provide creative employment and business and organisational experience to South African refugees and to provide the ANC community with its needs in the way of furniture.

While Star has never made large profits, neither has it been a burden on the ANC. It currently employs some 33 people and possesses a 1200 sq.metre factory, fourteen stationary woodworking machines, of which more below, and two trucks.

The machinery has however become quite run down. Five of the machines are not working at all and two others are in bad condition.

The last new machine was obtained in 1974.

A comprehensive plan has been drawn up involving rehabilitation, where possible, of existing machinery, and progressive acquisition of new machinery together with a full range of cutting tools and spare parts such as bearings and belts.

We now require the following:

(Details)

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