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Design Capabilities and Potential in “The Cotton and Textiles Sector in Tanzania: Issues and Opportunities. A report for the Tanzanian Government”

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DESIGN AND MARKETING CAPABILITIES

Introduction

This report presents the results of research into the design and marketing capabilities within the textiles sector. It is difficult to provide exact figures for the numbers of people involved in the textile and clothing industry, as many businesses are not registered with any of the government departments. However, of those companies registered between 2003-2005, just under 60% of businesses in Tanzania are involved in the manufacture of textiles and 0.1% are involved in the manufacture of wearing apparel. 92% of the Tanzanian businesses are individual/family owned, of which about a third are owned by women. Dar es Salaam has the greatest concentration of private sector business units (24%) (Central Register of Establishments, 2007).

A study by TGT has already outlined a number of significant issues that constrain current development of the industry (both domestically and externally to Tanzania) and also identifies opportunities that could be exploited. A project team has been organised to review each of these issues. The objectives for the study on design and marketing in Tanzanian textiles industry were to:

1. Review current design capabilities for both garment and household textiles
2. Consider how these capabilities could be developed with regard to both small-scale (informal sector) enterprise and larger scale and with regard to different components of the market
3. Advise on steps which could be taken to link local designers with international designers to create two way flow of design concepts
4. Relate design potential to the nature and flow of raw materials and their selection.

Research method

Based on the principles of the five phased new product development process, and the necessary components for the successful completion of the phases (see table 1), a qualitative, semi structured, in depth interview schedule was constructed. Responses were recorded by notes written during the interviews, which lasted between 40 minutes to two hours.

Table 1: design capabilities

phase	what each phase needs
Research and analysis	sources of inspiration: magazines, trade fairs, shopping, consumers, past sales figures, current resources (machinery, finances). to develop future trends for one year ahead: identify new colours, new fabrics, new details; identify staple colours, fabrics and detailing. knowledge/understanding of consumer attitudes. ability to differentiate products into good, better, best range of products.
synthesis	Pattern cutting skills, knowledge of fabrics, fitting skills, knowledge of or access to size charts, development of quality control measurements. Knowledge/understanding of consumer requirements. production staff to make to required standards. Fabric. Machinery. finances to buy raw materials and technology.
selection	understanding of consumer requirements. understanding of retailer requirements. retail buyers. publicity, press to attract buyers, methods of presenting new collections, eg fashion shows, trade fairs
manufacture	order numbers; production staff to manufacture to production numbers; fabric; quality control measures; finance
distribution	buyers; press - publicity and promotion, brand; consumers (knowledge of and access to); marketing knowledge; selling mechanisms - visual merchandising (labels, bags, packaging, display)

The Interview schedule

- How do you get inspiration for new concepts?
- Do you conduct any market research?
- Where do you sell? How?
- Do you promote your products... how?
- What are your company resources?
- What business help/support do you get?
- Where do you get the raw materials?
- What help do you get in design/production?

The sample interviewed was the following:

Government:

Ministry of Industries and Trade
Ministry of Trade (AGOA)

Handcraft/Fashion Design producers:

Marvellous Batik
Digna Fashions
Renzo
Batik Centre
Hassanal
Manju

Factories: EPZ Millennium Business Park

Namera Group of Industries
NIDA
CAM Apparels
African Textiles
Urafiki (China Tanzania Textile Mill)
Mr Mehboob Ismail (manager of Millennium Business Park)

NGO and Associations

TANCRAFT (Tanzania Handcraft)
ADAT (Artisans Development)
MIKONO

Educational institutes

College of Engineering and Technology, University of Dar Es Salaam
VETA (Vocational Education and Training Authority)

Results

Objective 1: Review current design capabilities for both garment and household textiles

Interviews with the SME's and the factories were examined. It appeared that the handcraft sector was very aware of the need to upgrade their design skills to achieve greater commercial success. The larger manufacturing sector appeared to be less concerned. They had invested in computer aided design (CAD) technology but did not utilise it to its full capacity, eg to develop collections or ranges as they manufactured according to designs and materials supplied or demanded by the buyers. The large manufacturers, therefore, used the CAD technology as a tool to communicate, negotiate and speed up the process of manufacture. They invested in design by employing designers but the designers were invariably from countries outside of Tanzania. All the factories trained their operators (under variable conditions) but they did not appear to engage in training designers.

Table 2: Comparison between the SME's:

	Marvellous Batik	Digna Fashions	Renzo	Batik Centre	Hassanali	Manju (at Mikono)
company resources	TGT and access to funds through quick loans, membership of ADAT	a salesperson and batik printer. Access to tailors, embroiderer. Also, access to TGT for marketing and to attend exhibitions, HOT and TANCRAFT for information about exhibitions and working together	tailors and salespeople, husband also a sales director in the company	membership of ADAT: access to machinery and marketing/business information	tailors to stitch clothes and access to finance through sponsorship deals; RODDS Tanzanite, TIGO	studio/workplace in Mikono
business support help required	manufacturing capacity support to help meet export order demands	5 million Tanzanian Shillings to buy fabrics, allow her to keep a reserve stock of fabric and develop her business to supplying other retailers (and wait for a month for payment)	marketing, and in finding means to export internationally	-Design skills: home décor or fashion training for own. -Marketing skills: Methods of making links with the market and promotion	more sponsorship, bank loans unavailable to him for religious reasons	100 million to 50 million T shillings to upgrade his business
source of raw materials	nearly all locally produced	both Tanzanian fabric producers (from who she regularly buys) and abroad as they are fashionable now	South Africa, Ivory Coast, Dakar, Senegal, DRSC but will not use much Tanzanian fabric because of the quality, colours, textures, designs or patterns. The Tanzanian fabric is not acceptable for her clients as it's rough and does not drape well.	local factories	Fabrics that he has used include the bezein and kitenge; he buys fabrics personally and from people who have bought fabrics in (imported). Does not like to buy local as not enough variety/design	fabrics from abroad (the best according to Manju), some fabrics are from local shops near Askgar and some West African materials. He prefers to use cotton or linen and buys wholesale/retail.
typical price range of products	a small bag may be 3000, medium bag 7000		\$60 to \$100 for occasion-wear or ceremony wear	(in T shillings) from dresses 35,000 to 200,000, a small bag may be 1500, medium bag 7500 and large bags from 10,000	Evening gown \$100 minimum, Wedding \$1300, Suits (men) linen \$150; linen is expensive in Dar, a ladies linen corset and trouser suit T shillings 80,000, corset T shillings 45-50,000.	18000 T'Shillings (about \$17) up to \$120 depending on the materials used.
company size (employee numbers)	16 permanent, 4 when extra work required.	2 permanent, 7 self employed	25	11 people, 8 of whom are permanent	3	10 people
company age	about 15 years	12 years	8 years	10 years	2.5 years	10 years

Table 2: Comparison between the SME's (continued):

	Marvellous Flotea Co. Ltd.	Digna Fashions	Renzo	Batik Centre	Hassanali	Manju (at Mikono)
getting inspiration	difficult to ascertain: response to materials	watching soaps, looking at what the stars are wearing, designs from people who come to her.	travels, fabric, other edsigner's works, customers bring their own ideas, magazines and TV	internet search for comparable prodcuts.	intuitive but different if client/corporate. Clients came with specific ideas and visuals, corporates want visuals, eg costumes for an event... use internet to get pictures. Fabric inspirations are from touch and feel, some use of handcraft, eg masai beading, for the Mama Africa collection or couture collections, .	internet, magazines, newspapers to see what designers are doing, how they've done it and information about successful people
market research	proactive in collecting market information by emailing customers and buyers for feedback from them to improve product quality.	talking to her customers	none ascertained	no consumer research, or estimation of potential market sizes	feedback from clients	customer feedback
selling mechanisms	her shop, wholesales, export orders to the USA, exhibitions.	her shop and trade exhibitions	currently one shop in Tanzania shop, preparing a second in Mbezi and negotiated a third in thrid in the New Africa Hotel. She has exhibited at one trade show: Saba Saba Government show in July 2006	Batik Centre and also at ADAT, a small outlet in the Kingamboni district, then several customers and Houston Inn	does not retail, no ready to wear or grading of sizes, sells at his studio (there is a fitting service in his studio)	Mikono shop and exhibitions
promotion of products	exhibitions and trade fairs, website	through word of mouth, attends trade fairs and exhibitions and participation in the Miss Exhibitions (competitions).	customers require individual designs; trade fair not the most appropriate use of her finances	trade fairs in Uganda, several trade fairs in Tanzania, Marco Tanno, TanCraft	his website, fashion shows for charities	Mikono shop and word of mouth

Table 2: Comparison between the SME's (continued):

	Marvellous Batik	Digna Fashions	Renzo	Batik Centre	Hassanali	Manju (at Mikono)
training	embroidery, stitching and smocking at school, SIDA (batik, stitching and product development - 6 months course), Tanzania Business Textiles Women's project (UNIDO and NDP), one year management skills and marketing with Hans Seidel Foundation. Ronald Brown Institute (at Pretoria University for entrepreneurial skills.	batik process from mother and also further training in batik and sewing and business orientation from colleges in Tanzania (courses were up to 6 months long).	training in making kitenge from the factories, hotel and business management college for business management training in Dar and then to Ohio University for degree in Business Management	batik and surface design	trained to be a doctor initially. Has some training in embroidery, stitching, hand weaving	graphic designer - cartoonist, in the advertising industry for 8 years, educated to A level standard. Training in tailoring and sewing from his mother and also his own experience
annual income	about \$20,000	10 Million T shillings (about \$10,000).	could not estimate	20 million T Shillings	not estimated	30-40 millions T shillings
product offerings	clothing, interiors products, basketry, bags, sandals	clothes and accessories: baskets from craft ops, beads and jewellery from Kenya, Arusha.	clothing and accessories	tailoring, stitching services and interiors products such as pillows, curtains, bags, bedcovers, bedsheets and other wares for men and women.	ladieswear and menswear	mens and ladies outfits and belts, shoes, keyholders

The table below is a comparison of the interviews at the large factories that illustrates that the larger organisations employed designers and made use of computer-aided design. It was apparent that design was more about amending currently popular designs (through amending colour, rather than new prints etc) or commissions by buyers.

Table 3: Comparison between the factories

	NIDA/NAMERA	AFRICAN PRIDE	CAMI	URAFIKI
company size (employee numbers)	up to 200 (estimate)	111 people employed at the factory, 45 are permanent, 26-27 are trainees and the rest are casuals.	1000: also two joint ventures as part of the Tanzanian operation which serve Tanzanian markets (police force and hotels/workwear uniforms).	difficult to estimate: about 300; 50-60% permanent staff and 30-35% casual
company age	recent start up, but took over from a factory started in the 1970's	started in jan 2005	Tanzanian factory started in december 2006.	over 40 years
owner's background	Pakistan, 50 year's textile industry experience	from India, his father in the textiles industry for 55 years, he has 16 years textiles industry experience	part of a group with factories in Cyprus and Bulgaria. Has knowledge of vertical operations through other factories.	Chinese
product offerings	kanga, kitenge, bedsheets	vitenge	apparel	vitenge and kanga and 48" bed sheets, for schoolchildren and bleached fabrics for use in tie and dye and batik
training	not really, hires those who have received training from elsewhere.	takes pace at his factory, gives a stipend for the time.	conducts sewing machine operator training at the factory	none mentioned
source of raw materials	kanga/kitenge: locally grown cotton. Bedsheets: imported wide width grey cloth	grey cloth from India/China; 100% cotton as well as 100% polyester (none from Tanzania)	China	local cotton and also grey cloth imported
getting inspiration	past good selling design	instructions from buyers; Holland or Nigeria	buyers hand over a design package	past good selling design
design equipment	separate design studio within NIDA factory with computer aided design: photoshop and some hand drawing facilities in case of computer failure. Archive of previous designs to aid in product development.	designer and AText CAD software, colour separation	design studio with CAD, hand drawing equipment, embroidery room with embroidery machines, laymarker and layplotter.	CAD machines
designer employed	yes, from Pakistan	yes, from India	yes, from Europe	2 or 3 designers
market research	rely on buyers	rely on buyers	rely on buyers	rely on buyers
selling mechanisms	agents to export	agents, some retailers	mainly export but also some to home market	export
export to	Mozambique and other African countries	70% export to Kenya, Zambia, Mozambique, etc; 30% local	mainly USA	Zambia, Mozambique, Malawi, and Zimbabwe;

The following attributes of the design process that help companies compete have also been used to further examine the companies visited.

- Understanding of consumer requirements (needs and wants)
- Method of distribution
- Relationships with retailers
- Relationship with fabric suppliers
- Flexibility of production
- Ease of access to manufacturing locations
- Design skill
- Innovation skills
- Speed of manufacturing process
- Promotional activities

Understanding of consumer requirements (needs and wants)

The SME's keep in contact with their customers, sometimes through personal contact, sometimes through correspondence. Lack of a design training school limits any deeper analysis of consumer trends to anticipate future tastes. The large manufacturing factories relied on buyer or agent for design ideas. Although they have CAD facilities, they seemed to be amending past successes instead of creating future new successful products. Relying on buyer's understanding of their customer and setting the brief makes them very susceptible to the fortunes of competition from other low priced manufacturers. CAMI group had customisation facilities and this may be further developed.

Method of distribution

All SME's sold products through their home or studio space. Mikono was an example of tourist attractive space to view crafts people working at places of creative work and thinking. Many used exhibitions and trade fairs. Trade fairs were not always satisfactory and require a careful understanding of what can be gained from showing at an exhibition. Flotea (Marvellous Flotea Co Ltd) had been very successful and had capitalised on consumer response to her products. However she too felt that she had reached a stage where she could not progress on her own. The large factories visited all exported, although there was some inland selling (following government guidelines).

Relationships with retailers and fabric suppliers

There appeared to be no relationship to be established between retailers or suppliers. Each is striving to manage the competition. There is no support for new designers through grants or access to materials for collections as in Europe or the Asian sub-continent.

Flexibility of production/Ease of access to manufacturing locations/speed of manufacture

Production capacity at all sectors (large or small), once reached, appears to have a ceiling, setting limits and therefore constraints on developing the business. The SME's individually produced in small volumes but, by networking, may be capable of raising the production capacity.

Design/Innovation skill

These are limited to amending the current knowledge. While the large manufacturing units have design ideas brought to them by buyers, the handcraft sector does not have this, unless they too are approached by a large organisation's buyer. The factories can attract buyers for volume, cost and quality of production, the handcraft does not have this, and they have to attract in terms of the product itself and the potential to create something unique. Lack of design training and access to research limits the creative thinking through of projects.

Promotional activities

Nearly all handcraft sector companies attended trade fairs or have websites. This did not appear to be the case for the large scale factories.

Objective 2: Developing the capabilities with regard to both small-scale (informal sector) enterprise and larger scale and with regard to different components of the market.

Following conversations after the first round of interviews had been completed, the **Tanzanian cotton value chain** was understood by the project team to be as below:

Figure 1: Tanzanian cotton value chain

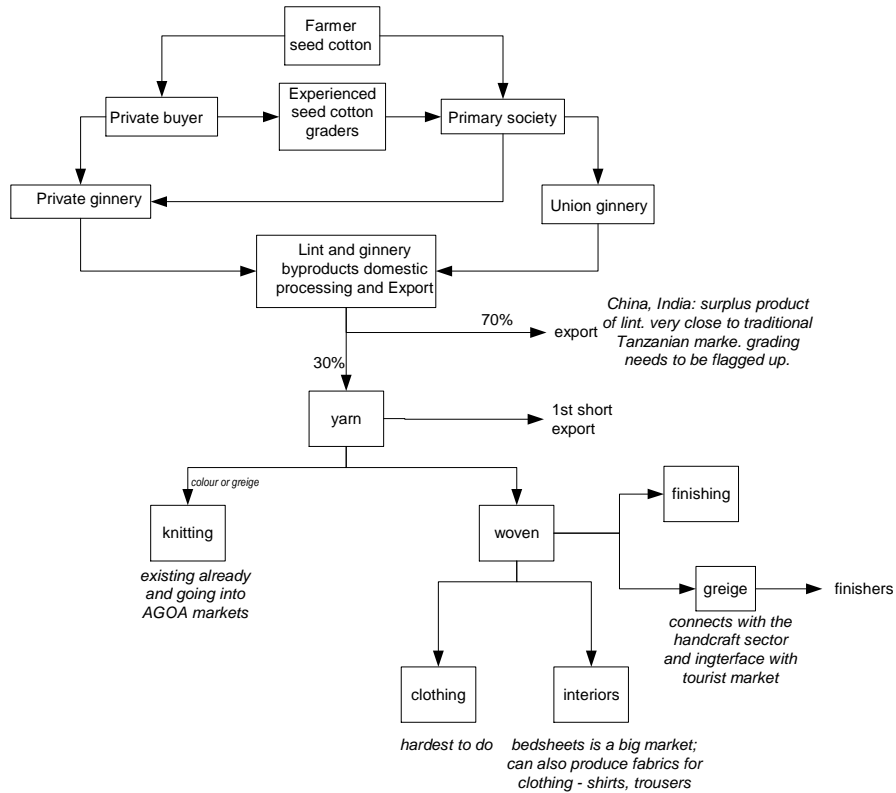


figure 2: A structure of the UK fashion and textiles industry (Easey 2005).

From this diagram it may be noted that there are key support industry elements that help facilitate the textile and fashion industries. From the interviews conducted, it appears that similar set of players in the textiles industry do exist in Tanzania, albeit at very small sizes and fledgling stages. There are also some lines of communication, these are illustrated in diagram.

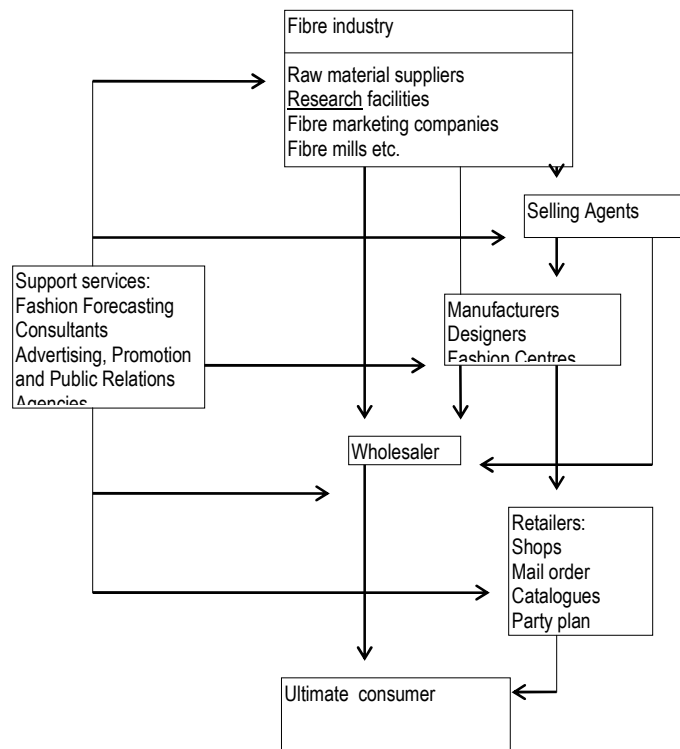
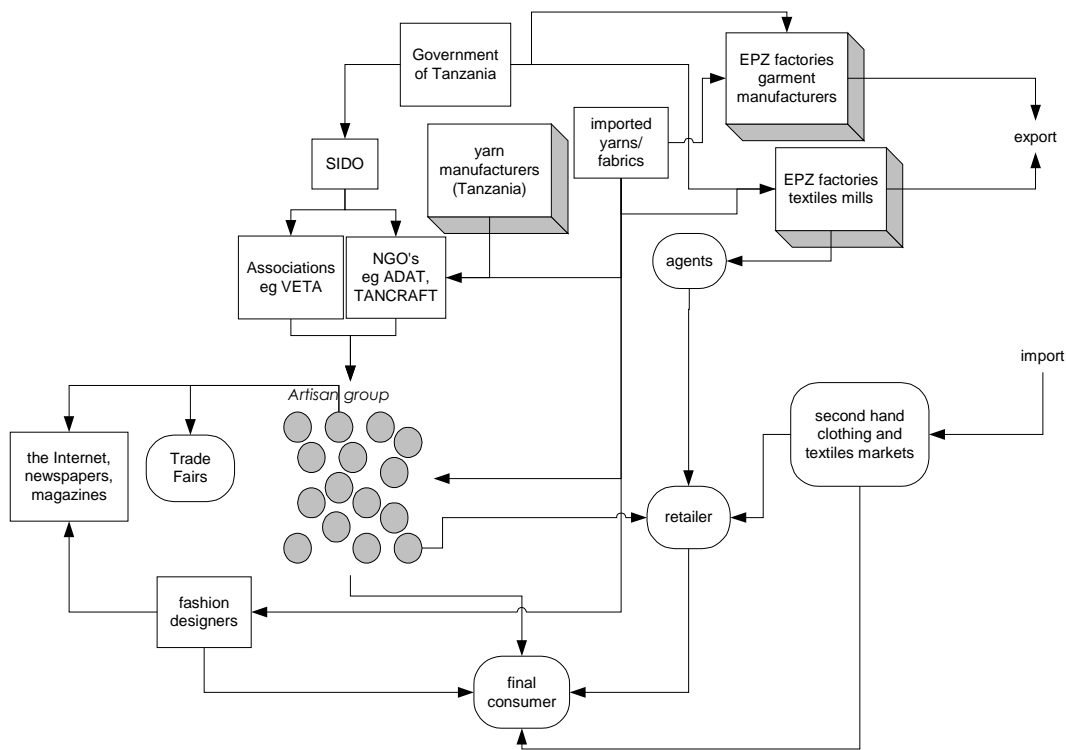


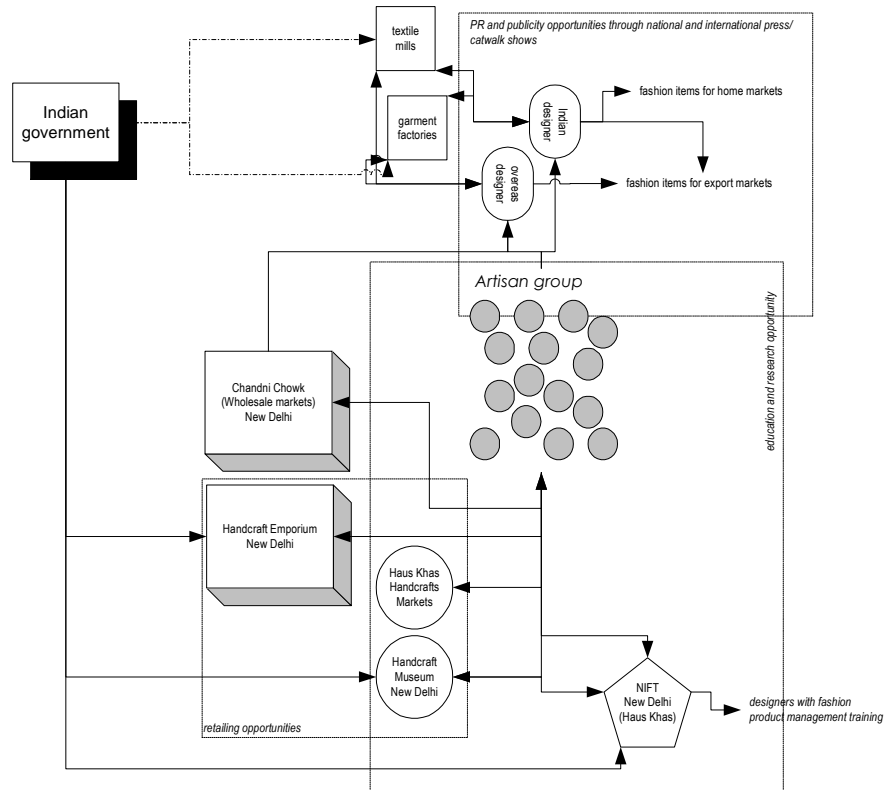
Figure 3: Structure of the textiles and fashion industry in Tanzania (Dar es Salaam)



The majority of the businesses are the small to medium sized enterprises or even micro enterprises (CRE 2007), many are in the handcraft sector and the second hand clothing. This is a situation not unlike that of India's textile and clothing industry. Each group, however acts on its own, there are few links between groups, raising little opportunity for innovation or creative ideas.

Figure 4: The Indian Textile and fashion industry structure

The Indian structure has more links between groups and there is a greater mix of different sizes of groups and activities coming together. Research is made possible through the links between educational establishments with industry of all sizes. This raises the potential to develop home grown talents and skills. The links also make it attractive for an overseas buyer to source manpower or skills from, as it creates easy access.



The Indian textile, fashion and handcraft sector developed together to their mutual benefit. In the late 1970's the government established some large handcraft retail outlets which began to draw interest from tourists. In 1985, the Government of India and the Fashion Institute of Technology (New York – a prestigious fashion institute with world wide repute) set about to create the National Institute of Fashion Technology (NIFT). NIFT has five centres, each is located in a centre of textile handcraft excellence (eg, Delhi, Mumbai, Kolkata) and each centre has strong links with the respective handcraft sector. By engaging with the sectors, NIFT produces designers who have an understanding of design management, the handcraft producers have products that are appropriate for their market and use their skills. Moreover, graduating designers who go on to work in industry maintain their links and are knowledgeable about where to source skills. To achieve this, the government have been very proactively involved: there is a minister for textiles who champions the industry and oversees the NIFT centres (as well as appointing director generals) with a structure hierarchy very similar to that at VETA.

To create interest in the Indian handcraft sector, it has been heavily exposed to the tourism market. There is a large government retail outlet (Khadi and Village Industries Commission (Ministry of Micro, Small and Medium Enterprises, Government of India, <http://www.kvic.org.in>) for handcraft in the centre of the New Delhi city, this is in conjunction with the Arts and Crafts Museum, New Delhi, with the remit of preserving cultural heritage and skills by developing relationships with craftsmen whose visits to the museum enable them to meet new urban patrons as well as either further their own skills or innovate. If one has more time, there are smaller, cheaper outlets for the handcrafts outside of the main city centre areas. There are also regular organised study tours operating for designers or public with interest in Indian handcraft (tours such as travel to Rajasthan, or Amber, where designers are taken to villages to see handcraft practised).

The Indian fashion industry has developed over a period of about 25 years and there are an increasing number of management related centres of study for postgraduate education in fashion and fashion management. As the production of fashion is becoming more global and thus more collaborative (with buyers, designers and manufacturers needing to understand each other's needs and constraints), the major export zones are beginning to develop courses in management for the fashion professional (of any discipline). An example of this is the Indian Apparel Export Council and their INSTITUTE OF APPAREL MANAGEMENT in Gurgaon, New Delhi. All the major institutes (including NIFT) are seeking to create MoU's with international universities to develop collaborative programmes or research.

Objective 3: Advise on steps which could be taken to link local designers with international designers to create two way flow of design concepts

Major challenges face the Industry: competition from China and India and is the second hand clothing market industry. A lack of design training impacts on creativity in product development (how inspiration is drawn), range planning (what styles and how many), product differentiation (creating market and pricing levels), future trends (an anticipatory approach) and understanding of consumer trends (product quality). For the craft sector to develop along the Indian scenario there needs to be the development of educational centres and market research resource centres and development of tourism for the handcraft sector.

- Establish a ministry of textile who will champion the industry
- Establish city centre handcraft store (for the passing tourist)
- Establish study tours aimed at overseas designers and artists to view handcraft as it is being made
- Develop a research centre to share market knowledge as well as skills knowledge (perhaps this might be web based and linked into a world wide community to allow for a large number of skills to be examined)
- Develop MoU's with overseas universities
- Establish scholarships for students to study abroad
- Establish 'sabbaticals' for designers and teachers to come to Tanzania and teach their skills
- Establish links between retailers and suppliers
- The second hand clothing market is prevalent throughout many countries in Africa, a recent study of the Malawi experience (Mhango and Niehm2005) propose closer ties between the retailers in Malawi and the second hand clothing retailers. In the spirit of handcraft and conservation, perhaps closer ties could be drawn between the second hand clothing and the handcraft sector where new products could be created out of old. This approach has already taken place in the UK with designers making

new designs from old clothes (eg Jessica Ogden, NoloGo label, Tord Boontje, Nadia Ballan). There are also ethical fashion shows where there are companies and networks presenting their items (<http://www.ethicalfashionshow.com/langues.htm#>) and Estethica (at the London Fashion Week www.londonfashionweek.co.uk).

- Establish a museum of handcraft that has links with the educational institutes as well as the handcraft sector.
- A series of promotional tours may be organised in countries where there is interest for handcraft. This will be necessary to create reputation and knowledge about Tanzanian handcraft. Large fashion organisations should be invited to such evenings, eg, CEO's of high street (mass market) retailers currently selling craft based products in the UK such as Paper Chase, Oasis, Monsoon (Accessorize), retailers interested in ethical fashion (eg People Tree, Marks and Spencer) and also fashion councils, such as British Fashion Council (www.londonfashionweek.co.uk) should be invited. The tours should also showcase the work of reputable designers who have established a brand name and USP for using heritage/culture in an innovative way. By making the buyers and design houses knowledgeable about sourcing craft skills from Tanzania, there may be a two way flow between the international designers and Tanzania (eg the French couture house, Scherrer, took on the Indian designer, Ritu Beri for her use of traditional village textile crafts in very modern ready to wear and couture collections)
- For the large manufacturing centres, the problems are to develop products at a certain price, and they need to compete with the second hand market in prices and emotion (as fashion is an emotional choice). Given that they have CAD facilities, there are opportunities to create networks and links with the handcraft sector and offer unique product design service to overseas buyers.

Objective 4: Relate design potential to the nature and flow of raw materials and their selection

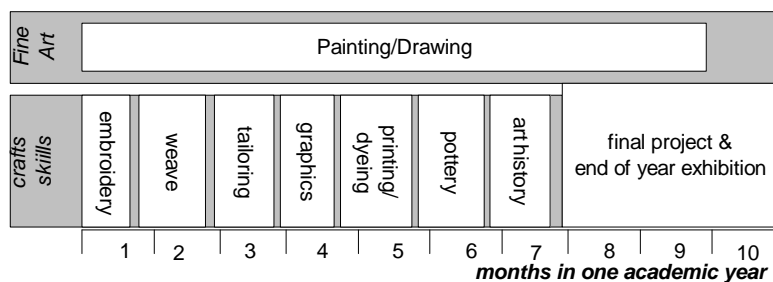
The selection of Tanzanian cotton appears to be one that primarily the handcraft sector aims for. The large manufacturers and fashion led companies do not tend to use it as first choice material (they all quote poor quality); they fulfil orders as requested by the industrial buyers. However, the consumer on the street when purchasing clothing has a definite preference for Tanzanian cotton when seeking to buy traditional kanga. In the immediate future, research seeking to understand the functional aspects of the locally produced cotton for traditional clothing may be.

Conclusion

The primary area of concern for the design and marketing of the Tanzanian textile and clothing industry is that there is very little design training and, in particular, methods of instilling creative thinking within product development. To develop design training in Tanzania, there would need to be several levels put into place: foundation and degree level (with the aim of developing towards postgraduate). Although there are no degree level courses available in textile and clothing, there are networks and colleges providing elements of courses that may be networked together to provide the fundamentals. The foundation level would be the most immediately attainable.

The VETA institution would appear to be the primary institution to turn to help develop foundation level courses in art and design (this would be post GCSE/O level and possibly directed at A level or post A level studies). The course would be a one year program with the following elements: fine art and craft skills. The fine art elements would help to develop creative insight while the craft skills would help to further develop creative insight and also learn how to incorporate the creative insight into product development. VETA has networked with the UK through the Association of College Managers (Fair Trade In Skills, <http://www.acm.uk.com/>). The areas that are being focused on are: construction, agriculture and tourism but there are also searches for opportunities with improving and updating of learning resources, and setting up teacher and student exchanges. Another college to network with may be the Bagamoyo College of Arts (<http://www.sanaabagamoyo.com>) where there is a tradition of teaching and practicing the fine arts. The crafts areas may be catered to through the input of associations such as ADAT (eg facilities such as weaving looms, sewing machinery, trainers).

The foundation level may be developed as:



The following would be required: tutors, space, and equipment.

Tutors: from VETA, ADAT, Bagayamo or staff exchanges from international institutions. The tutors would need to be able to set briefs that would develop creativity and design skills and would also be able to advise on the final project (which a student would set for themselves). The tutor would need to be able to assess if the final project could be undertaken (appropriate mechanisms available) and that it would have appropriate outcomes.

Equipment:

- Weave: looms, yarns, shuttles,
- Painting: fabric, iron, table, wax, wax pens and nibs, dyeing vats, printing press, print blocks, dyes, chemicals
- Tailoring: sewing machines, overlockers, chairs, paper, card, iron/iron table zips, buttons, thread, scissors, tables for flat working, interfacing, fusing, pins, chalk, fabric
- Embroidery: as for tailoring but with these extra items: embroidery hoops, sewing machine attachments for embroidery work, (embroidery machines), beading
- Pottery: kilns, clay, glazes
- Graphics: paper, computers, internet connections, pens, paint
- Art history: books, computers, internet connections
- Painting/drawing: easels, paper, charcoal, chalk, pens, paint, pencils, varnish

This approach would begin the process of developing networks between a number of handcraft sectors and educational institutes immediately. As there is also interest from international institutes (as demonstrated by the links between VETA and AMU in the UK, there is a possibility of developing international links which would help in developing the design education and so raising creativity in the handcraft sector.

Appendix 1: Second Hand Clothing Market

Second hand clothing market: mtumba
Ilala District
Dar es Salaam

Interview with a consumer.

The interviewee was aged in her early twenties, she has an office career and is undertaking studies for a degree. She lives alone in flat near the city.

The market was a maze of small 2mx2m stalls, with small walkways between each block of stalls. There were many stalls selling goods as diverse as:

- Clothes – outerwear (men, women, children)
- Underwear (as above)
- Jackets
- Coats
- Handbags
- Towels
- Bedlinen
- Curtains
- Shoes
- Fashion accessories

As we went into the market the interviewee explained that items for sale would be graded before being displayed for sale. There were three grades: top, middle and bottom. The prices to be paid for each would be roughly:

Top grade – shs 10,000 (\$10+)

Middle grade – shs 1000-7000 (\$7+)

Bottom grade – shs 300-1000 (\$3-4)

Sometimes, the top grade items are bought by retailers, they have the items cleaned, ironed and place into their stores. The items are not advertised as second hand but if asked, they do not deny it either. Often the mtumba are bought into Tanzania by Indian entrepreneurs through Dubai, Thailand and China. Ilala is the biggest market area for mtumba, it is a tax district but the stall holders do not have licenses.

In the stalls, the items were arranged with top grade items being displayed the highest levels and foremost, the cheapest were laid in a jumble on the table tops. By each table were large (about 2mx1m black plastic bags – about twice the size of a black plastic bin liner) bags full of more stock to sell. The stallholders were local people. Some stalls did sell newly manufactured items; shoes made locally and also underwear or bedlinen from China. The interviewee explained that the newly manufactured items were often not bought because the second hand clothes were often of better quality, more fashion orientated than the newly made. This was especially the case with shoes. Prices of products that we looked at:

Towels – shs 1000 (the price varies with the width of the towel, increasing with the width)

Bedding; 6x6 or 4x6; bed sheet and pillow set shs 8000, bed sheet on own shs 7000

Curtains shs 7000

Fashion bags @ shs 4000 (less fashionable and large bags shs 4000, more fashionable and smaller shs 3000).

As a consumer, fashion news is received through the tv and radio. Fashion programmes such as Nirvana (a European programme) offers tips on colour, hair, colours, shoes, handbags and make up. The current fashion is for sequins and colourful clothes. The young people tend to follow American fashion while the older people

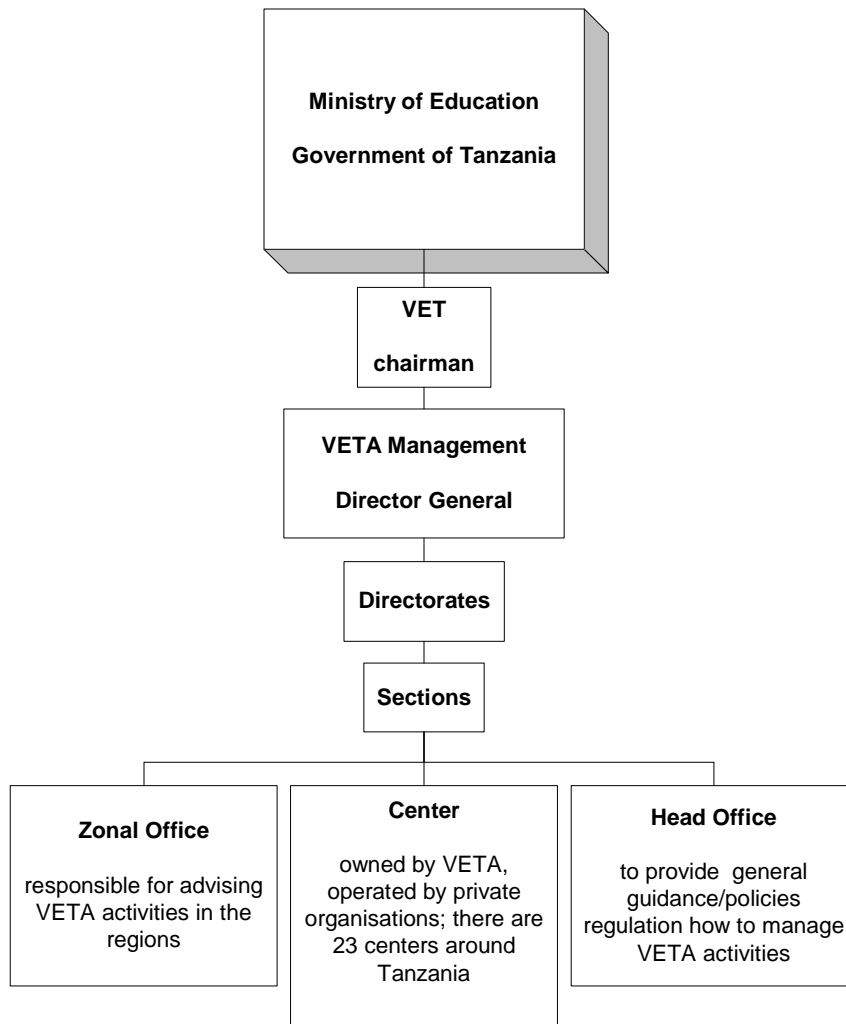
tend to follow the traditional African fashions. For fashionable clothes, my interviewee noted that synthetics were appreciated but there was still a high regard for traditional Tanzanian cotton.

We went on to Morogoro Road, to view how textiles are sold in the markets. The kanga from Morogoro are considered best (they are made in 100% cotton, are thicker and not susceptible to transparency) and are priced at shs 5000 from retailers and shs 4000 from wholesalers. Kanga from other manufacturers are mixed, thinner and cheaper in prices: shs 2000 from retailers and shs 1000 from wholesalers.

However, to buy wholesale, the kanga comes as eight pieces of kitenge together (a single piece of kanga is about 4 foot long) and to buy wholesale all eight pieces have to be bought as a whole. People may buy the kitenge as a wholesale and take it to tailors to have it made up into garments, perhaps use 4-5 m of the fabric and use the rest as a shawl. The kitenge bought from wholesalers costs shs 10,400, while from retailers costs shs 15,000.

Appendix 2: VETA Vocational Education and Training Authority

VETA was established through the VETA Act No.1 in 1994 as an autonomous body. The highest board at VETA is the VET Board (Vocational and Educational Training). The organisation is structured in the following way:



The chairman of this board is an appointment of the Minister of Education and is appointed to the office by the President of Tanzania. Under the VET board is the VETA management and the CEO is the Director General. Within the sections there are three umbrellas of management: zonal, center and head office. The centres are public companies and government partnerships: they are private establishments with government and VETA help.

There are 23 centres around the country and they all test applicants with the same questions. The centres are fee based: 110000 T shillings per annum for classes or 150000 T shillings for full board. These fees include all materials that will be required for the training. The fees are, of course, heavily subsidised. At private centres the fees would be much higher (about 2x as much) and some missions also provide some training for a much reduced fee of 6000 T shillings but the level of training is much lower.

There were two private training providers mentioned which offered tailoring training: Peramiho and NDANDA. VETA has good networks with the private training providers. VETA helped NDANDA curriculum development and carry out market assessments for

them. They can carry out independent market research both within VETA for VETA or for outside clients to ascertain skills requirement for the market or conduct tracer studies on students to discover their experiences after their learning and what other help they may need. This data is used to validate the training provided.

The level at which VETA awards its certificates are at levels 1-3, this is craft level and provides for artisan level. Tertiary level awards are at 4, 5 and 6 (National Accreditation and Technical Education) while universities award at levels 7, 8 and 9. Students enrolling on the tailoring courses are usually primary level educated and so their horizons are often limited. At this level, students may consider enrolling into classes either for tailoring or masonry /bricklaying. When applying to the centre, all potential students have to be tested. The selection test is an aptitude test in maths and English (which also tests creativity). There are normally around 3000 applications for about 1500 places. Pass level is 70%. Of the 1500 places, there are courses in mechanical, electrical, IT and secretarial studies; these are the most popular courses. There are usually about 1000 applications for motor mechanics for 82 places.

40% of the applications are for tailoring, the centre at Dar Es Salaam has a capacity of 20x2 places (am and pm classes). Tailoring is increasing in demand; there is an increasing demand to copy more expensive items, it's easy to set up a business or get employment with tailoring skills and the number of people with standard 7 education is also increasing. Most of the trainees and workforce in the factories are women.

Industry experts are brought in to help develop the curriculum. The tailoring course at VETA had previously been a traditional course but in 1989 there was a curriculum review where it was decided that the course would no longer be a six month course but rather a one year course, six months would be practical training at a factory and a six month period at VETA. The content of the programme includes design as part of the study but it is not taught explicitly. There are few competent experts that can teach design. The programme is due for a review again and it is recognised that there has been a change in technologies but again skills are few in this area. There are 60 tailoring courses in Dar alone but no higher level education in this area in Tanzania. Higher education level of training in fashion and design are in Kenya (Advanced Diploma) or degree in Zimbabwe (degree level) but this is looking very precarious due to the political unrest.

Fashion designers are respected if they reach a high level, examples of fashion designers who are famous and respected are: Africasana who can charge up to 70000-80000 T shillings (very expensive). The public are eager to have new fashions but people to make them aren't here. Associations that may be able to help with discovering the number of designers or handcrafters are CTI (Chamber of Trade and Industry) many of the big designers are members, SIDO (medium-small designers names, help them financially and with training skills needs) and also UNIDO (as SIDO).

Appendix 3: COET

University of Dar Es Salaam
The College of Engineering and Technology (COET)
PO Box 357075
Dar Es Salaam
Tanzania
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The day started with a welcome from Professor Hassan Katalambula and an explanation of the structure of the University. He explained that the college has three faculties of engineering: civil and built environment, electrical, mechanical and chemical. In addition to the three faculties, the university has a technology development and transfer centre and a Bureau of Industries.

The university has 600+ UG students, of which about 370+ are PG students; some of these are PhD students. There are 15 departments in three faculties:

- 4 in Civil engineering
- 4 in Electrical and computing
- 6 in mechanical and chemical and
- 1 in material technology.

There are 15 UG degree programmes (6 of which are in mechanical engineering).

The college has recently undertaken a curriculum review. Through the innovation clusters, there are 8 pilot clusters being developed, one of these in Dar es Salaam and is a textile cluster initiative. The college is in the final stages of launching this initiative.

With regards to the PG programmes, 17 have been approved by the Senate and these run when there are enough students. A number of them are continuous; eg water resources, engineering management. There are about 50+ students on the Masters in mechanical course. There are research projects being conducted in engineering materials (bio-composites). There are two projects (EU and European University) collaboration.

Leonard Mukombo is a lecturer at the college with textiles experience. He explained that Tanzania has established about 14 textile mills by 1995. most of these were government/national mills. There were a few privately owned mills, these numbered about 5 and were scattered around Arusha and Dar. By the late 1990's those mills had more or less completely collapsed. Some mills were bought and operated privately, such as Urafiki, Karibu (was private before) and Msoma. The overall situation is bad but as a field of study, the skills are still present in the country. Most of the mills that were operating were textile cotton processing mills, blending polyester, cotton and viscose. Again, Arusha is still operating.

With regards to personnel, Leonard used to work in the mills. As an industry, the workforce would be trained up to university level often from the UK (eg Bolton, Leeds, Manchester). Due to the collapse of the industry, many of these people are no longer employed. With regards to training, the government had plans to develop a textiles training institute but this had dried up. They had also undergone a process of starting up textile engineering programme but this too never took off. There is the equipment to start up chemical processing. With regards to design and production and physics and botany can be used to develop and support the programmes. Five years ago, there had been a textile and clothing programme at Soko University.

The round table discussion also offered many suggestions for the demise of the textiles industry:

Investment – funds from the World Bank were available to start up the mill but one needs to have operating funds and there was not enough facilities to do this.

Cotton is grown here but can't buy through local market and so it becomes very expensive. The Tanzanian economy is not a manufacturing economy but rather a processing one with dealers in China and Japan. Can't get spare parts for the mills as they're too expensive and so the mills get run down. Many of the mills were vertically integrated- the current thinking is to have horizontal integration; spinning to dyeing, in this process, spinning would take place at one mill and dyeing at another. For this approach to work requires collaboration. TIRO (Tanzanian Industrial Research Organisation) trained textile engineers but diversified to composting and chemistry labs. Diversification of products to synthetic fibres was also in place, during the 1970's and 1980's, the development of nylon overwhelmed the cotton industry. But now that there is more emphasis on natural fibres again, the trend is reversing and the synthetics market is now effected.

Textile technology is not new to COET, an M Eng has been approved by the Senate by when it had been approved the industry collapsed and experts from TISCO, an Indian company were brought in to inform the organisation. In 1992, after a review, the programme was withdrawn due to lack of demand; it could be reviewed for an UG programme. With more support, units could be set up to absorb graduates.

With regards to design, there are dyeing, fabric construction and fine art areas in the university. There is also a design and production engineering programme but this is concerned more with packaging and paper, etc but not textiles. Textiles and fibres are regarded as materials, then research activities are in fibres (naturals) and structures (such as sisal, coya, kapak, and kapak/cotton mixes). There was a proposition that if volume of home production of clothing manufacture could be increased then it might lessen the impact of second hand clothes market. The government, in a bid to reduce the amount of importation of second hand goods, had tried to introduce taxes to levy on this but the reasons why people buy second hand far outweighed any increase in prices. The second hand clothes were often of better quality, lower price than locally produced goods.

Morogoro polyester/cotton blends were able to penetrate the American market. The MFA led the Americans to come to Tanzania for cotton and quality was not an issue for them then. With the lack of the MFA, this has increased competition. Lonhro (an American firm) bought cotton from Tanzania, processed it outside and then reintroduced into the Tanzanian market at a higher price. India and China have managed to organise some form of home protection markets. Regarding labour costs, the average Tanzanian earns about 40cents an hour and this is Tanzania's competitive advantage. There were also some designers (trained in the UK) but it was not known where they were now.

With regards to re-establishing textiles teaching and research in the university, it was estimated that of the 130 academic staff, some 85 have PhD's (from 14 different countries) and some of these are in textiles related areas. However, the university has to respond to society's needs and demands. The example given was that of mining. There had previously been no mining training in the country until 2000. once the decision was taken to train graduates in mining, they, as a university dealt with this as a problem and they are now coming to third year of graduates in mining.

The textiles industry is being addressed in the form of a textile cluster. Existing clusters of textile groups have been identified and their training needs have been highlighted. A group of experts have put together a realistic action plan to launch this innovation cluster and they have started to actively work together. Entrepreneurs collaborate with a view to getting maximum benefit, one member of this cluster is a design and fashion handcraft business. The cluster has been reviewed and is ready to take off, SIDO will be financing it prior to launch.

The University had conducted a survey on SME activity in Tanzania and found that the handcrafts could be categorised for popularity: woodworking was the most popular handcraft sector for SME, then metalworking and third was textiles. Most of the textiles SME's were in tailoring, gowns and handweaving (kikoi). The companies buy grey cloth from factories and turn them into garments and they were mostly women. The university explained about the funding that had been taking place for the handcraft sector. Ten years ago there had been funding from Sweden and Denmark volunteer services. Tabora was a handloom production. In 1991, Morogoro and Arusha were centres of handloom weaving and dyeing. UNIDO also funded textile entrepreneurship for women. Three years later this had collapsed as handloom weaving, tie and dye market was reduced due to lack of fashion demand.

Appendix 4: ADAT

ADAT: Artisan Development Agency of Tanzania

This is an organisation with origins in an UNIDO project from 1995 'Tanzania Business Women Textile Project', which towards the end of the project in 1996 formed an NGO – ADAT.

The aim of ADAT is to train entrepreneurship and technical skills towards capacity building in textile products. ADAT has about 100 members on their books but there are 58 who may be described as active (they are currently paying fees and attending meetings, they watch, listen but tend to contribute to the discussions and they may/may not go to the exhibitions) and about 25 who are serious about their business intentions (they go to trade fairs, pay their fees, attend meetings, share their knowledge and experience are independent and don't often seek help). The fees for membership are currently:

10,000 T'Shillings annual charge

2000 T'Shillings a month (going up to 5000 T'Shillings).

ADAT has recently reviewed its strategies at their AGM and organised itself into committees to oversee the following:

- Marketing
- Production
- Importation of raw materials

Each committee will have 5 members each and this move has been prompted by a meeting with SIDO and the government; the government have appointed SIDO to work with them to export. One of the members has an AGOA order but take it up as they don't have the production capacities, the idea is to develop a network to do so.

ADAT originally ran three short courses in:

- Surface finishing (tie and dye, printing)
- Sewing machine maintenance and stitching (tailoring and sewing)
- Marketing and entrepreneurship (business management aspects)

A fourth was added in handweaving in 2001. They began with 12 trainees who are currently manufacturing and selling in regional trade fairs (trade fairs and selling shows in the East African region). All four of the programmes have become saturated in terms of customers; hand weaving attracted many as the competition from low priced industry manufactured fabric became intense (competition from Pakistan) and so lowered demand for hand woven fabric. The training programmes are in knowledge and skills and used to be 6 months long but are now 4 months. More bespoke courses to be organised in upgrading, product development is an ongoing process. The Ministry of Gender and Children helped ADAT to organise the training courses. However, it was noted that it was not only access to training that would make a project successful. Raw materials, machinery and space issues were also important.

The kikoi (handwoven fabric) uses home produced and finished cotton yarn. Imported synthetic yarns are also used as are dyes. As an NGO they are exempt for the normal taxation on the raw materials and so ADAT can sell them on to their members at a reduced price compared to the marketplace.

- The dyes are bought direct from the importers.
- Yarn is bought from a company called Muhammed Enterprises in Tanga; yarns from Tanga are better quality than from Tabora as they absorb dyes better and are stronger.
- Chemicals are bought from agents. They used to buy from HR and sons but now buy from Tata African Holding Company as they have better quality caustic soda.

Yarn produced locally is very expensive and so ADAT is looking for cheaper imports to make the products cheaper to develop. Members buy from ADAT the raw materials to either resale or add value to their own products. Typical prices for finished articles are:
Scarf Wholesale - 3000 T shillings per piece (there are ten pieces in the wholesale pack)

Retail - 3500 T Shillings (@\$3)

Kikoi (2mx115-110 cm): wholesale - 6500 T shillings

Retail - 7500 T shillings

ADAT products are sold at their premises and also the National Museum.

ADAT has user facilities where members may hire and pay for the equipment, such as handlooms and computers to access the Internet and the fees are discussed according to need. There are problems associated with this too:

- Rents are very high, necessitating high hire charges
- The space is not suitable either: the recycling of dyes and chemicals requires extra space to get rid of this. The area is very dusty and this is not suitable for working with textiles. The weaving machines are big and bulky are difficult to transport and take up a lot of space.
- Lack of research facilities: in 1987-8 there was a move towards using natural dyes but there was not enough funds to research and make the natural dyes of a comparable quality to the synthetic dyes. the weavers who use ADAT don't have the skills to look and research as they have had no exposure to other weavers; the weave structures for handwovens are plain and more input is needed to develop patterns and differentiate the products. This lack of research ability limits the products.
- Although the members have access to internet, they do not conduct market research, they rely on that done by members who are prepared to talk about and share their experiences of exhibitions that they have attended. There are plans to have a CBI programme on Export Marketing.

ADAT have a connection with TGT, TGT promotes them and they have also helped financially in capacity building for their members (who are their beneficiaries). TGT have given ADAT grants to help them organise workshops training in: screen printing, e-marketing, standardisation, environmentally friendly dyeing.