JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF TRADE AND INDUSTRY (MOTI)
THE REPUBLIC OF KENYA

THE MASTER PLAN STUDY FOR KENYAN INDUSTRIAL DEVELOPMENT (MAPSKID) IN THE REPUBLIC OF KENYA

FINAL REPORT

ANNEX

JANUARY 2008

SANYU CONSULTANTS INC., JAPAN
KRI INTERNATIONAL CORP., JAPAN

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Annex 1 List of Stakeholders

Name of Organisation		Description	Location	Note	Trade	Investment Promotion	R&D Technology	Human Resource	Infrastructure	Land policies and zoning	Finance	Environment	Business operation (legal, regulation et.c)	Other areas
MOTI	Ministry of Trade and Industry (MOTI)	Trade and industrial development policy development and administration	Naoribi and 20 District offices		✔	✔	✔	✔			✔		✔	
	Department of Internal Trade, MOTI	Policy development and administration on domestic business and trade development, management of Joint Loan Board Credit scheme		Statutory law: Industrial Licensing Act	✔			✔			✔		✔	
	Department of Weghts and Measures, MOTI	Administration of legal metrology services (service provided through KEBS)		Statutory law: Weights and Measures Act	✔								✔	
	Department of Industry, MOTI	Industrial development policy formulation and administration, administration of Industrial Legislation, industry-related data and information collection and analysis		Statutory law: Industrial Registratio Act		✔	✔						✔	
	Department of External Trade, MOTI	Trade policy guidance and promotion			✔	✔								
	Export Promotion Board/Centre for Business Information in Kenya (CBIK)	Export market development; product development and adoption; trade policy facilitation; African trade insurrance service; trade information and delivery service; development of exporting skills	Nairobi	Registered: Company limited by guarantee (Company's Act) Supervised by: MOTI, founded by EU support in 1998,	✔									
	Kenya Investment Authority (KenInvest)	Business Info; match-making; event facilitation; administrative assistance for investors	Nairobi and Eldoret	Parastatal Statutory law: Investment Promotion Act		✔								
	Kenya Bureau of Standards (KEBS)	Provision of laboratory testing; standard development and implementation; product certification; training	Nairobi, Kisumu, Mombasa, Eldoret, Nakuru, Garissa and	Statutory law: Standard Act	✔		✔	✔						
	Kenya Industrial Property Institute (KIPI)	Administer industrial property rights; technical sevices relevant to IPR	Nairobi	Statutory law: Industrial Property Act, Trade Marks Act, established originally as Kenya Industrial Property Office, re-established in 2002			✔							
	Kenya Industrial Research and Development Insutite (KIRDI)	R&D (laboratory services etc)	Nairobi and Kisumu	Statutory law: Science and Technology Act			✔	✔						
	Numerical Maching Complex	R&D (CAD/CAM human resource development, fabrication of machinery parts, tools etc)	Nairobi	Registered: Company limited by share (Company's Act) Share holders: University of Nairobi and Kenya Railway			✔	✔						
	Kenya Institute of Business Training (KIBT)	Business development training (management, entrepreneurship, marketing)	Nairobi	Organisation under MOTI				✔					✔	
	Export Promotion Zone Authority (EPZA)	Support the investment; Provision of business location; provision of business licences; and support the operation of the firms in EPZ	Athi River (HQ), Mombasa, Nairobi and Nyeri	Statutory law: EPZ Act	✔	✔			✔				✔	
	Kenya Industrial Estate (KIE)	Financing SMEs; Provide the land and premises for SMEs; technical services and training	Nairobi and 32 branches					✔	✔		✔		✔	
	Industrial and Commercial Development Corporation (ICDC)	Venture capital; corporate financing	Nairobi, Kisumu, Mombasa, Eldoret, Nakuru etc								✔			
	Industrial Development Bank (IDB)										✔			
	Business Premises Rent Tribunal			Statutory law: Land Lord and Tenant Act, established in 1965, a part of MOTI										✔

Name of Organisation		Description	Location	Note	Trade	Investment Promotion	R&D Technology	Human Resource	Infrastructure	Land policies and zoning	Finance	Environment	Business operation (legal, regulation etc)	Other areas
MLHRD	Ministry of Labour and Human Resource Develoment (MLHRD)	Policy formulation and administraion of employment, factory inspection and workders health, industrial relations, vocational training, promotion of self employment in micro and small enterprises, NSSF		Statutory laws: Trade Disputes Act, Regulation of Wages, Conditions of Employment Act, Industrial Training Act				✔	✔				✔	
	Department of Micro and Small Enterprises Development, MLHRD	Policy formulation for MSE sector development, capacity building of MSE organisations (Jua Kali associations), provision of MSE operation sites, assist MSEs' marketing of their products (e.g., holding MSE Exhibision)	Nairobi, Provincial Enterprise Development Offices in 7 towns and District Enterprise Development Offices in 12 towns			✔		✔	✔					
	Directorate of Industrial Training, MLHRD	Administration of National Industrial Training Council and Industrial Training Levy, certification of Trade Test		Statutory law: Industrial Training Act				✔						
	Productivity Centre of Kenya	Trainings and information dissemination to promote productivity movement	Nairobi	Tripartite organisation with MLHRD, FKE, COTU			✔	✔						
MOST	Ministry of Science and Technology (MOST)	Policy formulation and administration of the area of science and technology, policy formulation/administration of technical and vocational training					✔	✔						
	Technical Training Institutes (TTIs)		20 locations	Under MOST				✔						
	Institutes of Technology (ITs)		20 locations	Under MOST				✔						
	National Polytechnics		Nairobi (Kenya Polytech and KTTC), Mombasa, Kisumu and Eldoret	Under MOST				✔						
	National Council of Science and Technology (NCST)	Policy guidance for R&D and science and techology policy	Nairobi	Statutory law: Science and Technology Act			✔	✔						
MOF	Ministry of Finance (MOF)	National budget coordination, policy guidance and administration on banking, insurance and capital market policies, public procurement, PPP, Monopolies and Price Commission									✔			
	Capital Market Authority (CMA)										✔			
	Kenya Revenue Authority (KRA)	Collection of revenue (tax, duty excise)			✔	✔							✔	
MOPND	Ministry of Planning and National Development	National development planning, M&E of ERS and other economic development policies	Nairobi, and District Planning Officer											✔
	Central Bureau of Statistics (CBS)	Collection and management of statistical data												✔
	Kenya Institute of Policy Research and Analysis(KIPPRA)													✔
Ministry of Roads and Public Works		Roads, public buildings				✔			✔					
Ministry of Energy		Energy policy development and administration		Statutory law: Energy Act		✔			✔			✔		
Kenya Power & Lighting Company Ltd. (KPLC)		Electricity distribution/retailer		Statutory law: Energy Act		✔			✔					
Ministry of Water and Irrigation		Water resource management policy development and administration		Statutory law: Water Act		✔			✔			✔		
Ministry of Environment and Natural Resources		Environment policy, mining policy, forestry development policy		Statutory law: Environmental Management and Co-ordination Act,								✔		

Name of Organisation		Description	Location	Note	Trade	Investment Promotion	R&D Technology	Human Resource	Infrastructure	Land policies and zoning	Finance	Environment	Business operation (legal, regulation etc)	Other areas
National Environment Management Authority (NEMA)		General supervision and co-ordination over all the matters related to environment		Statutory law and regulations: Environmental Management and Co-ordination Act, Water Act, Legal Notice No.101 The Environemntal Impact Assessment and Audit Regulations 2003						✔		✔		
Ministry of Local Government		Policy guidance and administration on local authorities, administration of LATF		Statutory law: Local Government Act						✔				
Ministry of Lands and Housing		Policy development and administration of land policies and physical planning, land transaction and registration		Statutory law: Land Acquisition Act		✔				✔		✔	✔	
Ministry of Agriculture		Agriculture policies								✔		✔	✔	✔
Ministry of Livestock and Fisheries Development		Livestock and fisheries Policies								✔		✔	✔	✔
Kenya Agriculture Research Institute (KARI)							✔	✔						
Kenya Plant Health Inspectrate Service		Quality assurance of seeds; phytosanitary testing and analysis	Nairobi, Mombasa, Eldoret and border points	Under Ministry of Agriculture	✔		✔							
Kenya Medical Research Institute (KEMRI)		Health science research (carrying out the research, dissemination of findings), recently established manufacturing plants in order to produce the medical products based on the research findings		Statutory law: Science and Technology Act			✔	✔						
Pharmaceutical and Poison		Quality assurance of medicine		Under Ministry of Health			✔							
Pest Cotrol Board		Quality assurance of pesticide		Under Ministry of Agriculture			✔							
Universities		R&D, trainings		Key universities: University of Nairobi, Moi University, Egerton University, JKUAT, Maseno University, Western University College of Science and Technology, Kenyatta University			✔	✔						
National Cleaner Production Centre		Provision of technical support for manufacturing sector for more environmentally friendly production methods, NEMA's Authorised Environment Auditor	Nairobi	To be established as a trust under MOTI								✔		
Center for Energy Efficiency and Conservation			Nairobi	Project hosted by KAM, financed by DANIDA, to be established as the National institute under MOTI								✔		
Private Sector Organisations	Kenya Private Sector Alliance (KEPSA)	Umbrella body for private sector organisations, policy advocacy	Nairobi	Established in 2003. Composed of Institutional members, association members and corporate members		✔								✔
	Kenya Association of Manufacturers (KAM)	Provision of services to serve for the common interst of manufacturers	Nairobi, Nakuru, Mombasa and Kisumu	Established in 1959. 525 members are registered at present		✔								✔
	Kenya Chamber of Commerce and Industries	Provision of services to serve for the common interst of manufacturers, issueing the certificate of origine	Nairobi	Registered: Company limited by guarantee (Company's Act), 68 branches, 1500 members		✔								✔
	Federation of Kenyan Employers (FKE)	Provision of services in the area of industrial relations, consultancy, training and advocacy	Nairobi, Kisumu, Mombasa and Nakuru	Registered: Trade Unions Act, founded in 1959				✔						
	Kenya Business Council	Member based organisation for business sector. Acts as advocacy and undertakes lobbying. Established in 2002.	Nairobi	Hired full-time secretariat recently. Currently based in FKE		✔		✔						
	Eastern Africa Association	Providing business information and policy advocacy on behalf of foreign investors	Nairobi (offices and focal points in other East African countries such as Uganda and Tanzania)	270 foreign investors (who has substantial operational base in outside of the country.)	✔	✔								
	Kenya Institute of Management (KIM)	Provision of consultancy for management issues, trainings on the various managerial subjects, information provision on the good management practices	11 citiies in nation-wide					✔				✔	✔	

	Name of Organisation	Description	Location	Note	Trade	Investment Promotion	R&D Technology	Human Resource	Infrastructure	Land policies and zoning	Finance	Environment	Business operation (legal, regulation etc)	Other areas
Private Sector Organisations	Institute of Certified Public Accountant of Kenya (ICPAK)	Member organisation of practicing CPAs, semi-statutory body for accounting, custodian of the Code of Ethic, trainings and policy advisory relevant to corporate sector regulations		Statutory law: Accoutants Act. It is mandatory to be a member of ICPAK for practicing CPAs (2700 members)				✔					✔	
	Marketing Society of Kenya (MSK)	Member-based organisation for marketing practicioners, both individuals and corporate members											✔	
	Kenya Bankers' Association										✔			
Private Sector Organisations	Association of Kenya Insurers													✔
	Kenya Motor Industry Association (KMI)	Lobbying and harmonisation of issues relevant for the members		The members include assemblers, suppliers of parts, and importers/retailers. The organisation is not registered formally.										✔
	Kenya Fish Exporters and Processors Association	Quality control and harmonisation, training for quality control, policy advocacy, researches and information sharing, infrastructure development for fishing	Nairobi and Kisumu	MOU with the Ministry of Livestcok and Fishery	✔									
	Kenya ICT			KEPSA affiliate										
	Computer Society of Kenya													✔
	Pharmaceutical Society of Kenya													✔
	Agrochemicals Association of Kenya (KENYA)										✔			
	Petroleum Institute of East Africa (PIEA)	Group of companies in petroleum and petro-related industry for promotion of petro-related enterprises in Kenya									✔			
Private Sector Service	Commercial Banks									✔				
	Microfinance									✔				
	Nairobi Stock Exchange					✔								
	Accounting firms													✔

Annex 2 List of Supporting Organisations

	Name of Supporting Institution	Services	Location	Note	Marketing	Market and business information	Human Resource Development	Infrastructure	R&D	TECH Information	Finance	Management Advisory	Admin Support	Other services
MOTI	Department of Internal Trade,MOTI	Policy development and administration on domestic business and trade development, management of Joint Loan Board Credit scheme		Statutory law: Industrial Licensing Act	✔			✔			✔		✔	
	Export Promotion Board/Centre for Business Information in Kenya (CBIK)	Export market development; product development and adoption; trade policy facilitation; African trade insurrance service; trade information and delivery service; development of exporting skills	Nairobi	Registered: Company limited by guarantee (Company's Act) Supervised by: MOTI, founded by EU support in 1998	✔	✔	✔							
	Kenya Investment Authority (KIA)	Business Info; match-making; event facilitation; administrative assistance for investors	Nairobi and Eldoret	Parastatal Statutory law: Investment Promotion Act		✔							✔	
	Kenya Bureau of Standards (KEBS)	Laboratory testing; standard development and implementation; product certification; training	Nairobi, Kisumu, Mobasa, Eldred, Nakuru, Garissa and Nyeri	Statutory law: Standard Act			✔		✔	✔				
	Kenya Industrial Property Institute (KIPI)	Administer industrial property rights; technical sevices relevant to IPR	Nairobi	Statutory law: Industrial Property Act, established originally as Kenya Industrial Property Office, re-established in 2002						✔				
	Kenya Industrial Research and Development Insutite (KIRDI)	R&D (laboratory services etc)	Nairobi and Kisumu	Statutory law: Science and Technology Act			✔		✔	✔				
	Numerical Maching Complex	R&D (CAD/CAM human resource development, fabrication of machinery parts, tools etc)	Nairobi	Registered: Company limited by share (Company's Act) Share holders: University of Nairobi and Kenya Railway			✔		✔	✔				
	Kenya Institute of Business Training (KIBT)	Business development training (management, entrepreneurship, marketing)	Nairobi	Organisation under MOTI			✔					✔		
	Export Promotion Zone Authority (EPZA)	Support the investme; Provision of business location; provision of business licences; and support the operation of the firms in EPZ	Athi River (HQ), Mombasa, Nairobi and Nyeri,	Statutory law: EPZ Act				✔					✔	
	Kenya Industrial Estate (KIE)	Financing SMEs; Provide the land and premises for SMEs; technical services and training	Nairobi and 32 branches				✔	✔			✔			

	Name of Supporting Institution	Services	Location	Note	Marketing	Market and business information	Human Resource Development	Infrastructure	R&D	TECH Information	Finance	Management Advisory	Admin Support	Other services
MOTI	Industrial and Commercial Development Corporation (ICDC)	Venture capital; corporate financing	Nairobi, Kisumu, Mombasa, Eldoret, Nakuru etc								✔			
MOTI	Industrial Development Bank (IDB)										✔			
MOTI	Business Premises Rent Tribunal			Statutory law: Land Lord and Tenant Act, established in 1965, a part of MOTI										✔
MLHRD	Productivity Centre of Kenya	Trainings and information dissemination to promote productivity movement	Nairobi	Tripartite organisation with MoLHRD, FKE, COTU			✔					✔		
MLHRD	Directorate of Industrial Training, MLHRD	Administration of National Industrial Training Council and Industrial Training Levy, certification of Trade Test		Statutory law: Industrial Training Levy Act			✔							Policy formulation, regulartory body for industrial training, certification
MLHRD	Department of Micro and Small Enterprises Development, MLHRD	Policy formulation for MSE sector development, capacity building of MSE organisations (Jua Kali associations), provision of MSE operation sites, assist MSEs' marketing of their products (e.g., holding MSE Exhibision)	Nairobi, outreach: Provincial Enterprise Development Offices in 7 towns, District Enterprise Development Offices in 12 towns		✔			✔						Policy formulation for MSE development, MSE organisation development
	National Council of Science and Technology (NCST)	Promotion of R&D, provision of funds for piloting research findings	Nairobi	Under the Science and Technology Act			✔				✔			
	Kenya Textile Training Institute (KTTI)						✔							
	Universitites	R&D, human resource development		National Universities:Nairobi, Maseno, Egerton			✔			✔				
	Kenya Plant Health Inspectrate Service	Quality assurance of seeds; phytosanitary testing and analysis	Nairobi, Mombasa, Eldoret and border points											✔
	Pharmaceutical and Poison Board	Quality assurance of medicine		Under Ministry of Health										✔
	Pest Cotrol Board	Quality assurance of pesticide		Under Ministry of Agriculture										✔
	ISO Certification Assessors	ISO Certification		Multinational ISO certification agentISO90001:2000, ISO14001:2004 (e.g., BVQI Kenya, SGS Kenya).										✔
TIVET	Technical Training Institutes	TIVET	20 locations	Under Ministry of Science and Technology			✔							
TIVET	Institutes of Technology	TIVET	20 locations				✔							

	Name of Supporting Institution	Services	Location	Note	Marketing	Market and business information	Human Resource Development	Infrastructure	R&D	TECH Information	Finance	Management Advisory	Admin Support	Other services
TIVET	National Polytechnics	TVET	Nairobi (Kenya Polytech and KTTC), Mombasa, Kisumu and				✔							
Environment	National Environment Management Authrotiy (NEMA)	Environment Impact Audit Assessments review and certification												✔
Environment	National Cleaner Production Centre	Provision of technical support for manufacturing sector for more environmentally friendly production methods, NEMA's Authorised Environment Auditor	Nairobi	To be established as a trust under MOTI						✔		✔		
Environment	Center for Energy Efficiency and Conservation (CEEC)		Nairobi	Project hosted by KAM, financed by DANIDA, to be established as the National institute under MOTI						✔				
Environment	EIA Auditors (private firms)	Undertake EIA		Registered at NEMA										✔
	Kenya Private Sector Alliance (KEPSA)	Umbrella body forprivate sector organisations, policy advocacy	Nairobi	Established in 2003										Advocacy
	Kenya Association of Manufacturers(KAM)	Provision of services to serve for the common interst of manufacturers	Nairobi, Nakuru, Mombasa and Kisumu				✔			✔				Advocacy, despute resolution
	Kenya Chamber of Commerce and Industries	Provision of services to serve for the common interst of manufacturers, issueing the certificate of origine	Nairobi	Registered: Company limited by guarantee (Company's Act), 68 branches, 1500 members			✔							
	Federation of Kenyan Employers (FKE)	Provision of services in the area of industrial relations, consultancy, training and advocacy	Nairobi, Kisumu, Mombasa and Nakuru	Registered: Trade Unions Act, founded in 1959			✔					✔		Labour dispute resolution, advocacy
	Kenya Business Council		Nairobi	Hired full-time secretariat recently. Currently based in FKE										Policy advocay and
	Kenya Motor Industry Association (KMI)	Lobbying and harmonisation of issues relevant for the members		The members include assemblers, suppliers of parts, and importers/retailers. The organisation is not registered formally.										Policy advocacy and lobbying
	Kenya Fish Exporters and Processors Association	Quality control and harmonisation, training for quality control, policy advocacy, researches and information sharing, infrastructure development for fishing	Nairobi and Kisumu	MOU with the Ministry of Livestcok and Fishery	✔		✔	✔		✔				Policy advocacy, research

Name of Supporting Institution		Services	Location	Note	Marketing	Market and business information	Human Resource Development	Infrastructure	R&D	TECH Information	Finance	Management Advisory	Admin Support	Other services
Eastern Africa Association		Providing business information and policy advocacy on behalf of foreign investors	Nairobi (offices and focal points in other East African countries such as Uganda and Tanzania)	270 foreign investors (who has substantial operational base in outside of the country.)		✔								Policy advocacy, research
Marketing Association of Kenya		Member organisations of marketing and marketing research practictioners. Individual and corportate members			✔									
Financial sector	Commercial Banks				✔						✔			
	Nairobi Stock Exchange					✔					✔			
	Association of Kenya Insurers													✔
	Capital Market Authority (CMA)					✔								
	Kenya Bankers Association										✔			
Institute of Certified Public Accountant of Kenya		Member organisation of practicing CPAs, semi-statutory body for accounting					✔					✔		Polic advocacy, self-reguratory mechanism
Accounting firms												✔	✔	
Kenya Institute of Management (KIM)		Provision of consultancy for management issues, trainings on the various managerial subjects, information provision on the good management practices	11 citiies in nation-wide				✔					✔		
SME Solution Centre		Training/support for preparation of business plans, facilitation of access to finance		Established as a project by IFC							✔	✔		
AMSCO		Attachment of experienced international managerial human resouces to SMEs		Established by UNDP/IFC project, now operating as a private firm						✔		✔		

Annex 3 Questionnaire for the Cluster Analysis

Version 6 June, 2006

Date :
Consultant :
Name

Company Name :
Sub-sector :
Address :
TEL :
FAX :
E-mail :

1. About the Interviewee (If he is the owner, skip this section.)

(1) Name :
(2) Position :
(3) The year joined in the company :

2. Outline of the company

(1) Establishment : Year ( )
(2) The owner type : a. government: ( )
b. foreign: country ( )
c. Asian-Kenyan: country ( )
d African-Kenyan
(3) The owner 1) name:
2) education background:
3) career background:
(4) Latest Annual Sales : ( ) million Ksh in Year ( )
(5) Production Cost 1) parts and material :( )million Ksh in Year ( )
2) outsourcing :( )million Ksh in Year ( )

3. Identifying the Products and Market Position

(1) Top 3 products

	Production volume per month	Sales domestic markets	Share exports	Destination of exports
1)( )	( )	( )%	( )%	( )
2)( )	( )	( )%	( )%	( )
3)( )	( )	( )%	( )%	( )

(2) Market Position of the Product 1) (the main product)

Domestic	Exported Location ( )
1) Your company No. ( ) Share( )%	5) Your company a. growing b. steady c . declining
2) No. 1 Company ( ) Share ( )%	6) No. 1 Country ( ) Share ( )%
3) No. 2 Company ( ) Share ( )%	7) No.2 Country ( ) Share ( )%
4) No. 3 Company ( ) Share ( )%	8) No. 3 Country ( ) Share ( )%

4. Conditions of the Final Market

(1) Changes in the domestic market (trend)

1) Price : a. higher b. same c. lower
2) Cost : a. higher b. same c. lower
3) Quality : a. higher b. same c. lower
4) Scale (Volume) : a. bigger b. same c. smaller
5)Market competition : a. high b. modest c. low

(2) Changes in the regional market (Africa)

1) Price : a. higher b. same c. lower
2) Cost : a. higher b. same c. lower
3) Quality : a. higher b. same c. lower
4) Scale (Volume) : a. bigger b. same c. smaller

(3) Effects from the imported goods

1) Trend : a. big b. small c. none
2) if the effect is big,
a. Country of origin : ( )

b. the reasons : a. price b. quality c. marketing strategy
(multiple selections)

5. Conditions of the forward linkages, or final makers / assemblers

* This question is to be asked only to the companies producing the semi-products.

Products of the Final Makers	Origins of Buyers	No. of buyers for this company	Trend of the Demand		
			Price	Quality	Volume
1)( )	( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small
2)( )	( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small
3)( )	( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small

6. Identifying the Backward Linkages

(1) Outsourcers

Process, Goods (not company name)	Locations of suppliers	No. of Suppliers for this company	Availability as a whole
1)( )	( )	( )	a. many b. enough c. limited
2)( )	( )	( )	a. many b. enough c. limited
3)( )	( )	( )	a. many b. enough c. limited
4)( )	( )	( )	a. many b. enough c. limited
5)( )	( )	( )	a. many b. enough c. limited

(2) Raw material (including those which are indirectly procured)

Raw Material (not company name)	Origins of Production	Price	Quality	Volume
1) ( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small
2) ( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small
3) ( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small
4) ( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small
5) ( )	( )	a. high b. middle c. low	a. high b. middle c. low	a. big b. middle c. small

7. Labour conditions

(1) Full-time employees

	Number of employees	Required qualification
1) Managers	( )	
2) Skilled workers	( )	
3) Unskilled workers	( )	

(2) Part-time employees

	Number of employees	Average duration of employment per person per year
1) Skilled workers	( )	( ) months
2) Unskilled workers	( )	( ) months

(3) Average salary of full-time employees

	Full Time	Part Time
Skilled workers	1) ( ) Ksh/month	2) ( )Ksh/month
Unskilled workers	3) ( ) Ksh/month	4) ( )Ksh/month

8. Productivity Control (Include cost management and delivery management)

(1) Measurement index of productivity	a.Quantity ( ) b.Production speed ( ) c.ProductionCost ( ) d.Others( )	
(2) Main method for productivity control		
(3) Manual for production control	: a. yes b. no	
(4) Main production facility	Facility	Quantity
	( )	( )
	( )	( )
	( )	( )
	( )	( )
	( )	( )

9. Quality Control

(1) Measurement index of quality	a.Performance ( ) b.Defection rate ( ) c.Others( )
(2) Main method for quality control	
(3) Manual for quality control	: a. yes b. no
(4) Standards to be followed	:

10. Investment Strategy: type of investment planned in 5 years (multiple answers)

	Location
a. expansion of domestic sales channels	( )
b. expansion of foreign sales channels	( )
c. expansion of production facility at existing factories	( )
d. establishing new factories in Kenya	( )
e. establishing new factories abroad	( )

11. Strategy and structure of the Sub-sector

(1) Openness to new investors : a. open b. modest c. closed

(2) Member of associations?

1) a. yes b. no

(name:)

↓ ↓

2) In what way are they active? (multiple answers)
a. policy advocating
b. information delivery
c. joint procurement
d. joint marketing
e. technology upgrade
f. credit
g. savings
h. training
i. others ( )

3) Why not joining associations?
( )

12. Identifying importance of infrastructure (only for relevant infrastructure)

	Required improvement	Usage volume per month
(1) Electricity	:	( ) kw
(2) Water	:	( ) kl
(3) Transportation	1) road:	
	2) train:	

	3) air:
	4) ship:
	5) others:
(4)Telecommunication	1) telephone/fax:
	2) Internet:
(5)Others	( )

13. BDS Providers

(1) What are the major difficulties or obstacles for your company? （multiple answers)

a. ( ) Severe market competition
b. ( ) Lack of information for market expansion
c. ( ) Lack of information for technological upgrading
d. ( ) Obtaining better material/parts/components
e. ( ) Keeping quality standards / upgrading productivity
f. ( ) Labor issues and quality
g. ( ) Cost increase of
h. ( ) Tax / administrative system
i. ( ) Insufficient infrastructures (Roads, Electricity, Water-supply, etc.)
j. ( ) Others ( )

	(2) How does your company try to overcome the problems mentioned above? (multiple answers)	(3) Does your company require any improvement regarding this?
a. ( )	Information gathering by yourself ( )	
b. ( )	Utilising consultants ( )	
c. ( )	Obtaining loan ( )	
d. ( )	Utilising outside training opportunities ( )	
e. ( )	Participating in exhibitions ( )	
f. ( )	Making allies with other enterprises ( )	
g. ( )	Utilising the services offered by the public institutions ( )	
h. ( )	Utilising the services offered by the private institutions ( )	
i. ( )	Others ( )	
j. ( )	None→ Reason	

14. Any requests to the government and the Study Team for industrial development?

Thank you very much

Annex 4 Related Organisations

Institute	Export Promotion Council (EPC)
Date of Establishment	1992
Mandate	To develop and promote Kenya's exports of goods and services and harmonise export related activities
Services	• Export market development • Product development and adaptation • Trade information & delivery services • Trade policy facilitation • Development of exporting skills • African trade insurance services
Main Office	Nairobi
Branches	JKIA (Nairobi), Eldoret, and Mombasa

Institute	Industrial Development Bank Capital Ltd. (IDBC)
Date of Establishment	1973
Mandate	to provide medium and long-term finance and accompanying financial and corporate advisory services to medium and large-scale industrial enterprises; and provision of working capital, machinery and finance
Services	• Short-term working capital financing • Bridging finance • Export / import financing • Letters of credit • Management and consultancy services • Financial advisory services • Guarantees and indemnities • Asset finance/ lease • Contract financing
Main Office	Nairobi

Institute	Industrial and Commercial Development Corporation (ICDC)
Date of Establishment	1954
Governing Law	Industrial and Commercial Development Act (CAP 445, 1955)
Mandate	to provide finance and equity capital for expansion and development of new and existing medium size private-sector industrial and commercial enterprises in Kenya
Services	• Corporate finance • Venture / equity capital • Small and medium loans • Management support services
Main Office	Nairobi
Branches	Nakuru, Machakos, Eldoret, Nyeri, Meru, Kisii, Kakamega, Kisumu, Mombasa

Institute	Kenya Industrial Estates Limited (KIEL)
Date of Establishment	1967
Governing Law	the Companies Act (CAP 486)
Mandate	to support entrepreneurship and indigenous enterprise development
Services	• Lending • Property and asset management • Business Development Service (BDS)
Main Office	Nairobi
Branches	Voi, Nakuru, Kericho, Kisumu, Mombasa, Eldoret, Meru, Kakamega, Kabarnet, Nyeri, Kitui, Embu, Machakos, Kisii, Bungoma, Thika, Sultan Hamud, Malindi, Murang'a, Garrisa

Institute	Kenya Bureau of Standards (KEBS)
Date of Establishment	1974
Governing Law	the Standards Act (Cap 496, 1974)
Mandate	to develop and enforce the standards of industrial products
Services	• Standards Development • Testing • Metrology • Implementation of Standards in commerce and industry • Accreditation • Certification • Inspection of imports and local products
Number of Personnel	746 (as of April 2005)
Main Office	Nairobi
Branches	Mombasa, Nakuru, Kisumu, Nyeri, Garissa, Eldoret, Namanga, Bussia, Malaba, Isebania,

Institute	Kenya Industrial Research and Development Institute (KIRDI)
Date of Establishment	1979 (formerly started in 1942 as a central laboratory)
Governing Law	the Science & Technology Act (CAP 250, 1979)
Mandate	to conduct research and development in all industrial and allied technologies, including mechanical, civil, electronics, chemical engineering, energy, environment, and commodity technologies
Services	• Research and development (engineering, food technology, leather and textile, mineral resources, ICT, etc.) • Commercial services • Business development and planning
Main Office	Nairobi
Branches	Kisumu

Institute	Kenya Investment Authority (KenInvest)
Date of Establishment	2004 (Transformed from the Investment Promotion Centre, established in 1986)
Governing Law	the Investment Promotion Act (No. 6 of 2004)
Mandate	to promote local and foreign investments in Kenya by providing information on opportunities, policies, incentives, and procedures
Services	• Information on investing in Kenya. • Assistance in the identification of investment opportunities • Identification of joint venture partners. • Appraisal and approval of investment projects • Assistance in timely acquisition of necessary licenses, clearances and permits
Main Office	Nairobi
Branches	Eldoret

Institute	Numerical Machining Complex Ltd. (NMC)
Date of Establishment	1994 (formerly started as a project in 1986)
Mandate	to manufacture metallic components and other industrial products
Services	• Manufacturing of mould, die, casting • Manufacturing of metallic components • Training in CAD
Number of Personnel	57 (as of 2006)
Main Office	Nairobi

Institute	Kenya Industrial Property Institute (KIPI)
Date of Establishment	2002
Governing Law	The Industrial Property Act (Chapter 3 of 2001)
Mandate	to administer Industrial Property Rights (IPR); to provide technological information and training in IPR; and to promote inventiveness and innovativeness
Services	• Administer industrial property rights (i.e. patents, trade marks, utility models, and industrial designs) • Providing technological information to the public • Provide training on industrial property.
Main Office	Nairobi

Institute	Export Processing Zones Authority (EPZA)
Date of Establishment	1990
Governing Law	Export Processing Zones Act (CAP 517, 1990)
Mandate	to catalyse industrial and economic development through investments in Economic Zones
Services	(i) Pre-investment services • Provision of information and legal advice to investors • Granting of appropriate EPZ Enterprise licences, EPZ Developer/operator Licences • Liaison with other government agencies for the issuance of additional Licences (ii) Post-investment services • Approval of building plans within public zones and liaising with local authorities in approving plans in the case of private zones • One stop facilitation of operating investors including customs and immigration requirements • Industrial relations and dispute resolution for enterprises • Technical services in the area of waste management and maintenance of acceptable environmental standards within public zones • Management of public zones • Provision and maintenance of zone infrastructure • Facilitation of linkages between EPZ investors and providers of goods and services in the domestic territory
Main Office	Athi River
Branches	Mombasa

Institute	Kenya Wine Agencies Ltd. (KWAL)
Mandate	to produce and distribute wines and spirits in Kenya and beyond
Services	Manufacturing of wines and spirits
Main Office	Nairobi

Institute	East Africa Portland Cement Company (EAPCC)
Date of Establishment	1933
Mandate	To manufacture and market quality cement and cement products to the satisfaction of our customers
Services	Manufacturing of cements
Main Office	Athi River

Institute	Kenya National Trading Corporation Ltd. (KNTC)
Date of Establishment	1965
Governing Law	The State Corporations Act (CAP 466 in 1986)
Mandate	to distribute essential goods across the country
Services	Distribution of sugar, rice, wheat, maize, etc.
Main Office	Nairobi

Institute	Kenya Institute of Business Training (KIBT)
Mandate	to provide entrepreneurial development services to MSMEs
Services	• Training for the craft and diploma courses • Training in short-term technical courses
Number of Personnel	32
Main Office	Nairobi

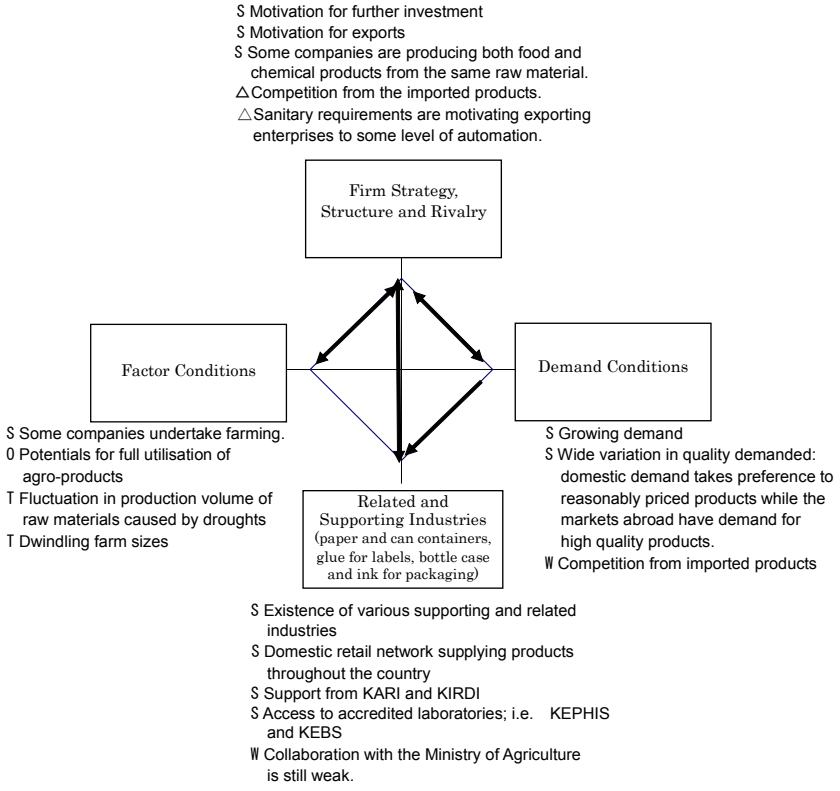
Institute	Kenya Industrial Training Institute (KITI)
Date of Establishment	1965
Mandate	To provide industrial and entrepreneurship skill training for investment and employment creation
Services	• Training for the craft and diploma courses • Training in short-term technical courses
Number of Personnel	55
Main Office	Nakuru

Annex 5 Result of the Cluster Analysis

1) Food and beverage

This sub-sector is showing the strongest potential in the diamond model analysis because of the favourable status of demand and factor conditions. The domestic demand for food and beverages is steadily growing, and products developed for the domestic market are also exportable to the neighbouring countries. While the domestic market prefers reasonably priced products, some export markets demand high quality products. Some companies undertake production of food and chemical by-products from the same agro-product. A popular example is cooking oil and soap. For such a large size and product diversification in demand, various types of manufacturers can enjoy operating in this sub-sector. Moreover, this sub-sector is most active across the country, utilising local resources. Although not all the visited companies rely on domestic materials, there is much more potential for exploiting domestic agro products. Backed by the growing market, enterprises show positive stance towards investment. Although competition from the imported products is getting severe for canned and bottled foods, which last longer, local enterprises are working in an effort to compete against them in price and quality. Potentialities of this sub-sector can also be observed through the width of supporting industries. Supporting industries among the sample enterprises include paper and plastic containers, bottle case, glue for paper labelling and ink for packaging. These supporting industries are enjoying growing demand conditions of the food processing sub-sector. On the other hand, the weakness of this sub-sector is low institutional collaboration between the farmers and the manufacturers. Supply volumes of raw products are not stable because farmers are switching into more productive income activities. Collaboration between the Ministry of Agriculture and the Ministry of Trade and Industry needs to be strengthened. Moreover, enterprises targeting at the export markets have to follow sanitary requirement such as "Good Manufacturing Practice", which motivates the enterprises to go into some level of automation.

Figure A-1 Diamond Model of the Food and Beverage Sub-sectors

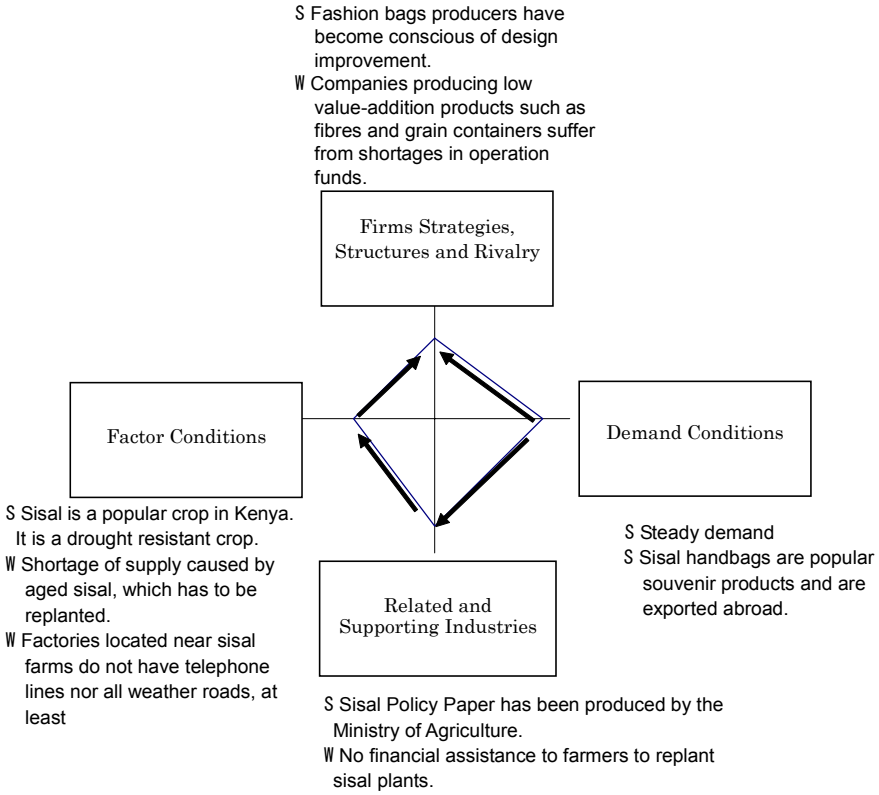


Legend: S (strength), W (weakness), O (opportunity), T (threat), △ (neutral, but influential)
Source: The JICA Study Team and Workshop Presentation Paper of Group 3 on 28 June, 2006

2) Textile (Sisal)

Sisal textile sub-sector utilises local agro-products. This sub-sector has vertical integration from agro products, then to production of fibre and finished products such as sisal strings, sisal bags for grain packaging and sisal designed bags. Such vertical integration should be taken as important in terms of income generation across farmers, artisans, unskilled workers and labourers in the remote areas. Sisal products are targeting both domestic and export markets, and designed bags are popular souvenir products. Although the demand conditions are good, supply of sisal is low. The sisal plants have become old, but farmers do not have funds to replant. Enterprises targeting export markets of fashion bags are aggressive in design improvement. However, enterprises producing low value-addition products such as strings and grain containers suffer from underproduction and shortages of working capital.

Figure A-2 Diamond Model of the Sisal Textile Sub-sectors

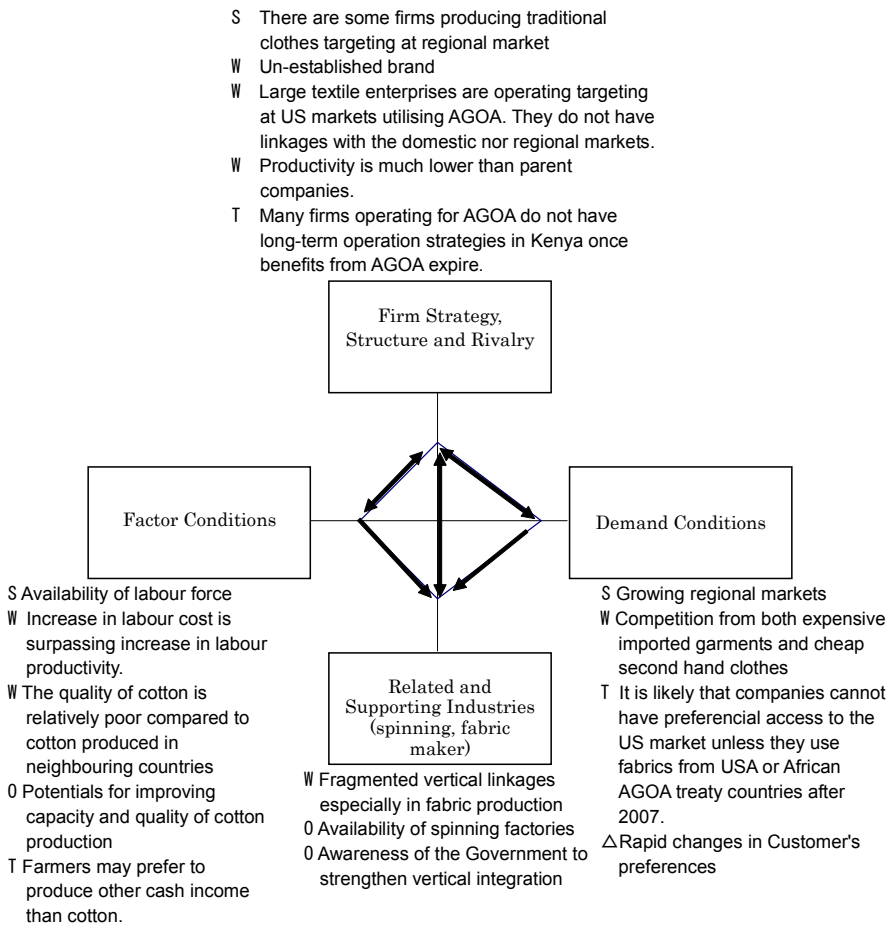


Legend: S (strength), W (weakness)
Source: The JICA Study Team

3) Clothes

This sub-sector is characteristically labour intensive, and labour cost is one important factor for foreign investment. However, the continuous increase of the minimum labour wage without increase in labour productivity is giving disincentives to foreign direct investment in Kenya. Although export of garments from EPZs increased by 39% (real) between 2000 and 2005, the enterprises targeted the US market utilising AGOA are taking the "foot-loose" view: i.e. they are ready to move out of Kenya if the advantages enjoyed from AGOA disappear because they do not see any other comparative advantages of operating in Kenya. Although Kenya can produce cotton, and there are some spinning companies, there are no large-scale fabric manufactures. Thus, there is no vertical integration. Because the third country importation of fabric shall not be allowed after 2012 under AGOA, the Government is seriously seeking a way to integrate the vertical integration of textiles and garments sub-sectors. As for the domestic market, imported and second-hand products have made the market size smaller, but there are some enterprises producing traditional clothes targeted at the regional markets. Moreover, there are a number of micro-small-scale enterprises undertaking manual spinning, weaving on the one hand, and many doing tailoring and dressmaking by themselves even in the country side. Strategies to adding values such as made to order clothes and African taste fashionable clothes need to be sought to differentiate them from the imported and used clothes.

Figure A-3 Diamond Model for Textile and Garments Sub-sectors

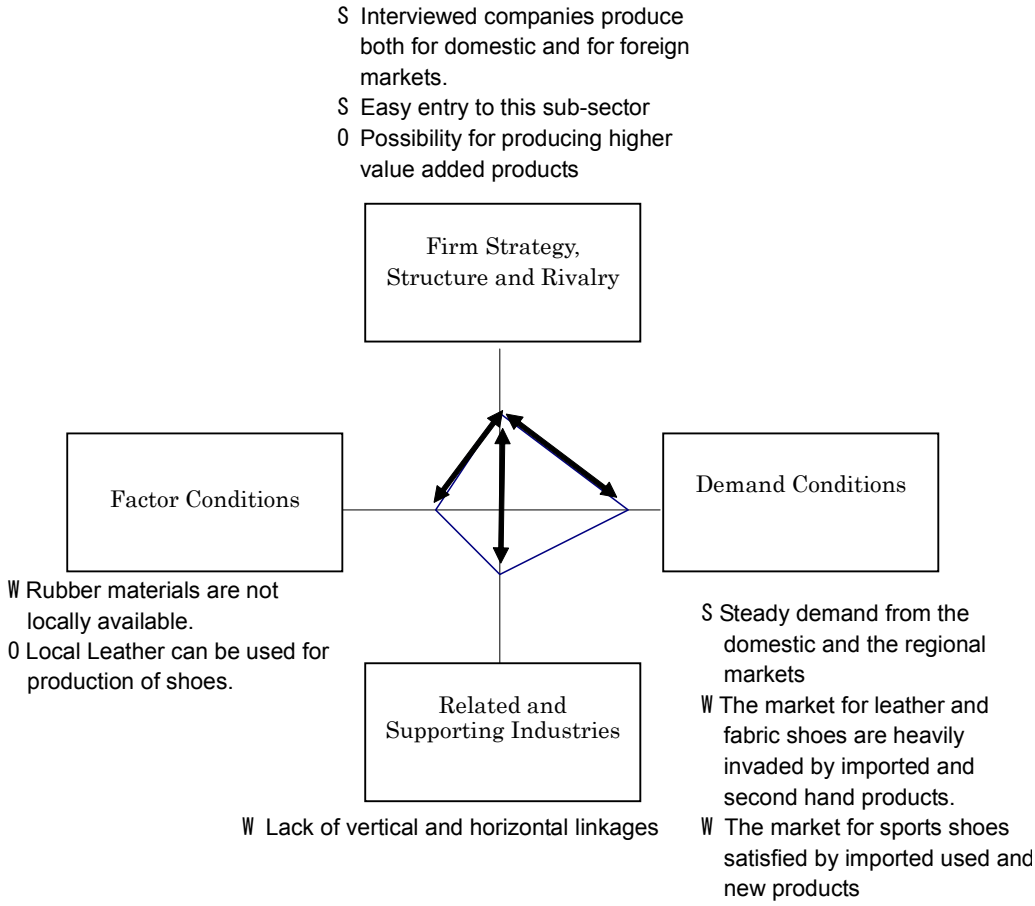


Legend: S (strength), W (weakness), O (opportunity), T (threat), △ (neutral, but influential)
Source: The JICA Study Team and Workshop Presentation Paper of Group 1 on 28 June, 2006

4) Footwear (Rubber Sandal)

Footwear manufacturing is usually popular among micro-small and medium enterprises (MSMEs) because it is based on local demand. It is also characterised by easy entry due to low investment requirements. But the situation in Kenya is different. Footwear markets are flooded by used shoes and imported shoes. Although Kenya has strength in leather, leather shoes are hardly produced in Kenya. The interviewed large scale enterprises also used to produce sports shoes, but they now produce only rubber sandals because the markets for the sports shoes are now satisfied by the imported and used products. Rubber sandals do not have strengths in factor conditions because the materials used are from plastics. However, regional demand conditions look positive as discussed in Chapter 9.3.2 (3). Due to low price and the hot weather, rubber sandals seem to have steady demand regionally.

Figure A-4 Diamond Model of the Rubber-Sandal Footwear Sub-sector

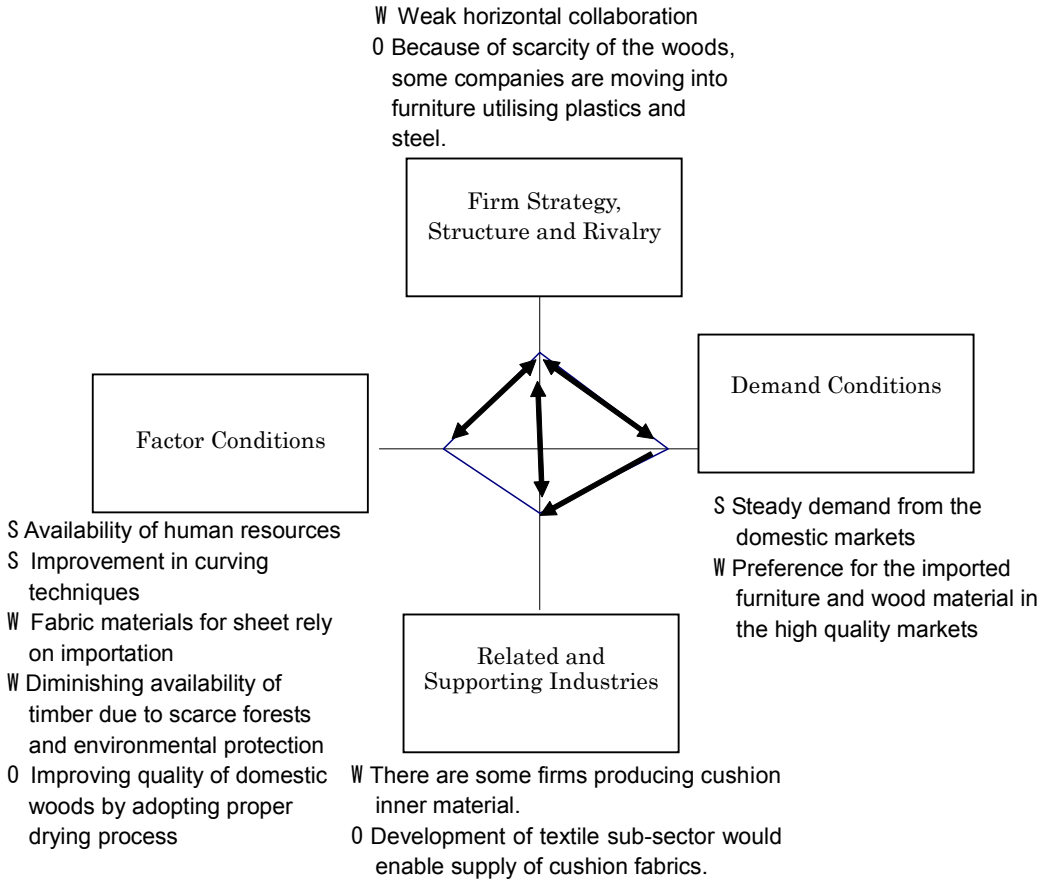


Legend: S (strength), W (weakness), O (opportunity), T (threat)
Source: The JICA Study Team

5) Wood products and furniture

The factor conditions suddenly changed in 1999 when the Government banned logging of hardwoods. The sector was forced to move into the use of softwoods afterwards, but the poor drying process causes cracks. In spite of scarcity for industrial use, large portion of woods are still consumed for fuel[1]. It is suspected that the raw material availability shall remain scarce for at least another decade until the newly planted trees grow [KAM (2006) p.175]. The main products from the sub-sector are used for construction and furniture. Although demand for wooden materials for construction is growing, the lack of raw materials is forcing them to go into under production. On the other hand, the furniture sub-sector is supported by local demand and popular among MSMEs. Along the road side, many *jua-kali* enterprises are producing furniture. Many of them demonstrate skills in designing and curving. Local furniture should have comparative advantages against imported finished products because of high transportation cost for the latter which are heavy in nature. Yet, the high quality markets now show preference to imported products and material. Because of scarcity of woods, many firms are moving into the plastic and steel furniture. The notable supporting industry in this sub-sector is the manufacturers of cushion material. Otherwise, variation of supporting industries is not wide.

Figure A-5 Diamond Model of the Furniture Sub-sector



Legend: S (strength), W (weakness), O (opportunity), T (threat)
Source: The JICA Study Team

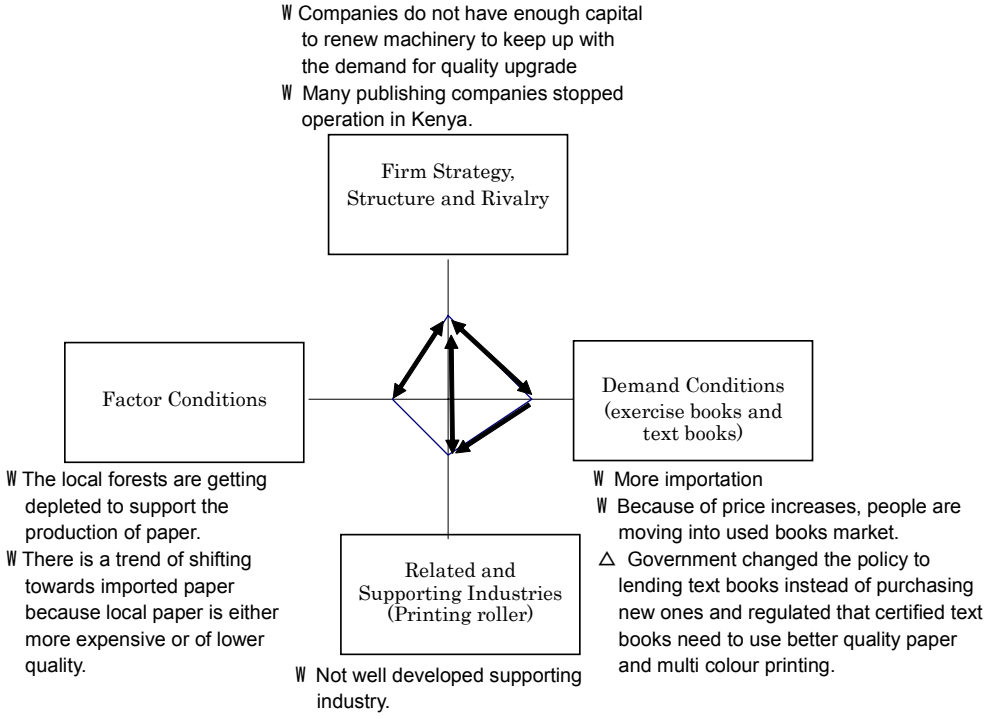
[1] It is estimated that 75% of domestic energy is obtained from wood and charcoal [EPZA (2005b)].

6) Paper, printing and publishing

There are 13 large enterprises producing paper and pulp, but it is only Panafric Paper Mill in Webuye that has a licence to manufacture paper from local forest. The main interest of Panpaper Mill is to increase productivity so that its products can compete against imported paper, which more and more companies are relying on. Efficiency improvement of paper producers is important; otherwise domestic vertical chain will collapse as was the case in textile and garment.

As for printing and publishing sub-sector, analysis is restricted to printing and publishing industry serving educational sector, which is one of the main markets in this sub-sector. Demand conditions of the text books are affected by policies of Ministry of Education, Science and Technology. There have been some changes in textbooks procurement policies. In early 1980's, the cost sharing policy was introduced with most of the burden being gradually transferred to the parents. With the introduction of the Kenya National Textbook Policy in 1998, emphasis was made on the durability of text books so that the schools can lend to the students instead of having them purchase every year. The required technical specifications included quality of paper and multi-colour printing, which were not possible to be met by the local source paper and local printing companies. This regulation has caused more use of imported paper and off-shore printing. The local prints often have problems in binding, cutting pages and printing in the right positions. Technological assistance is needed so that the quality meets market needs and demand. The links with supporting industries of publishing sector do not look strong, either. Among the samples, a rubber roller manufacturer for printing machines was identified, but this is mostly for maintenance work. As more and more books are published off-shore, prices of such books go up, and this has caused people to move into used book markets.

Figure A-6 Diamond Model of Printing and Publishing Sub-sector for Text Books

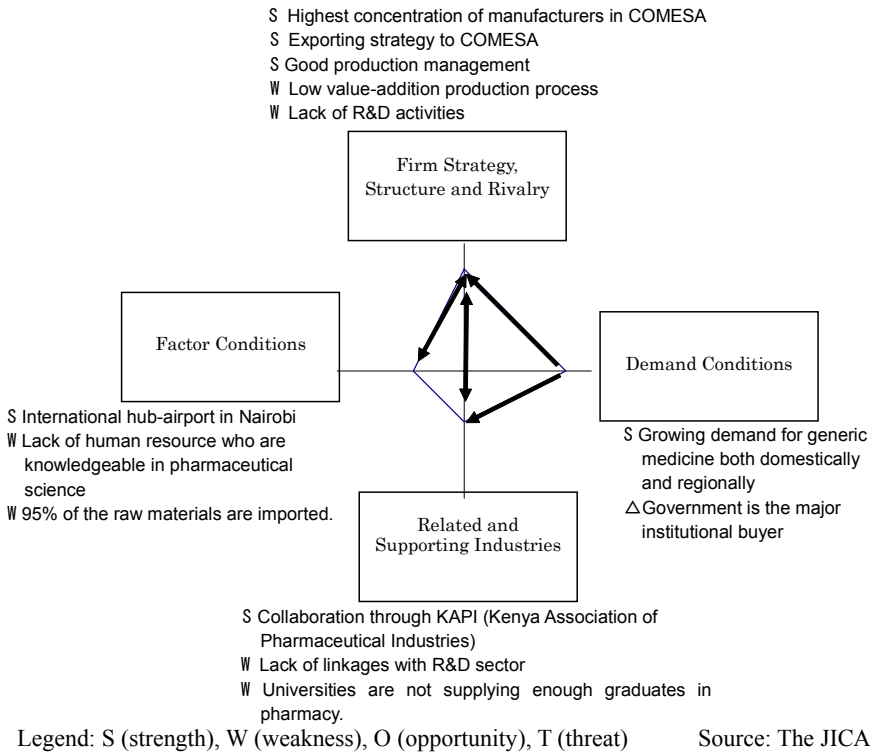


Legend: S (strength), W (weakness), O (opportunity), T (threat), △ (neutral, but influential)
Source: The JICA Study Team

7) Pharmaceuticals

Kenya has an established concentration of pharmaceutical manufacturers. 50% of the production values are manufactured in Kenya with presence of 30 out of 50 leading companies within COMESA [EPZ (2005c) p.2]. The strategic location of Kenya, linking it to 46 cities, is the main reason for creating the concentration. Kenya's political stability, regulations on property right protection and human resource are other reasons for her popularity. However, importation of the pharmaceutical products surpasses exports by 3.6 times. Imported value of pharmaceuticals was $128 million, and export value was $28 million while production output was $53 million in 2004 [UN Comtrade; KAM (2006) p.182]. This makes Revealed International Competitiveness (RIC)[2] at minus 1.9. Weakness of the sub-sector is its heavy reliance on imported products. Over 95% of the raw materials are imported while the local supplies include packaging, maize starch, refined sugar, glucose syrup, rectified spirit and ethanol and sodium chloride [EPZ (2005c) p.8]. Production activities carried out in Kenya are basically mixing of material, packaging, testing and delivering. There are hardly any R&D activities carried out inside the companies. Although Kenya has some active R&D institutions such as Kenya Medical Research Institute (KEMRI) and African Medical Research Foundation (AMREF), their activities are hardly linked to the industry. Moreover, the universities are not supplying enough graduates to pharmaceutical sector to serve the needs of the industry since most graduates in medicine find their employment in hospitals and pharmacy shops. Because of the strong requirements of sanitary standards, production process is inevitably automated, and the required number of labour force is relatively small. The average employment size was 90 people in 2002 [KAM (2006) p.179]. Kenya could pursue more benefits from this sub-sector through providing more local material and carrying out more value added production. Moreover, some companies practice high level of production management techniques, which are still rare in Kenya. Spill over effect is expected from the working experience under the best management practice.

Figure A-7 Diamond Model of the Pharmaceutical Sub-sector



Legend: S (strength), W (weakness), O (opportunity), T (threat) Source: The JICA Study Team

[2] Revealed International Competitiveness (RIC): (Export i – Import i) / Production i

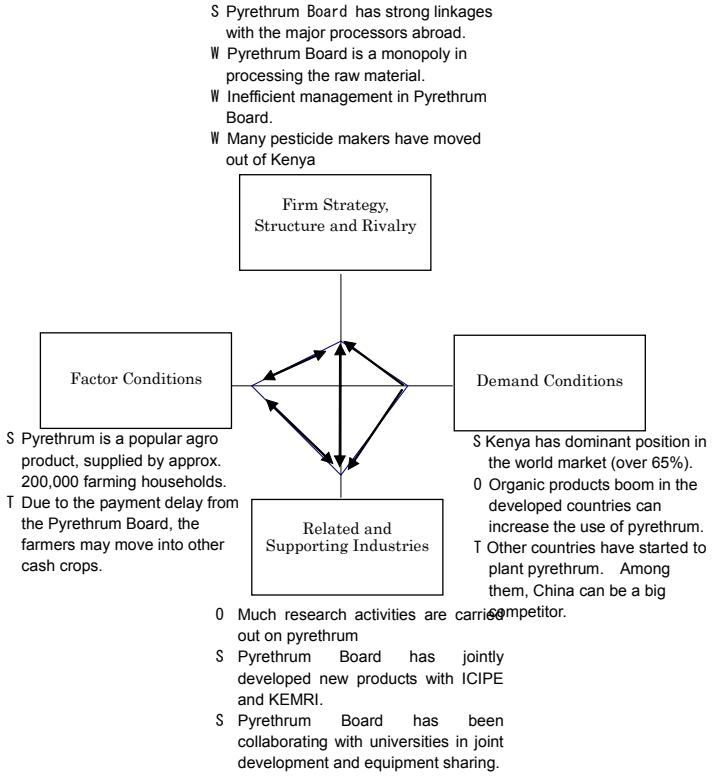
8) Petroleum and chemical products

Petroleum and chemical products contain a broad range of products serving various sectors. Characteristics of this sub-sector are discussed in the following three categories.

Products utilising local material

While most of enterprises in this sub-sector rely on importation of raw material, there are some raw materials locally available such as vegetable oil for soap, wattle for tanning, oleo for resins and pyrethrum for pesticides. Issues associated to with this category are improvement in quality and steady supply of the raw material and exploring opportunities for further exploitation of the raw material. With the growing concern for environmental protection, some new investment is coming in for bio-diesel utilising molasses. At present, pyrethrum is the most important product in this category because Kenya controls over 65% of the world market share. Its global standards originated in the R&D results from Pyrethrum Board of Kenya. Although pyrethrum has global comparative advantage, its vertical chain is not strong. The Pyrethrum industry supports incomes of approx. 200,000 farming households mainly in Lake Victoria, Northern Rift Valley, Southern Rift Valley and Mount Kenya area; however, the farmers cannot secure stable income because of payment delays by the Pyrethrum Board. Pesticides makers also do not find comparative advantages in processing in Kenya because production costs are too high. Therefore, refined pale extract, the high value added product of the pyrethrum, is exported and processed abroad. Demand conditions of pyrethrum are positive because of increased demand for organically grown foods/products in developed countries. This will see natural pyrethrum preferred to synthetic and chemical substitute products. However, China is now moving into production of pyrethrum and is on the way of accreditation. This will see her pyrethrum become a threat to Kenya's. Improving efficiency is a must for Kenya to sustain its comparative advantage in the pyrethrum markets.

Figure A-8 Diamond Model of the Pyrethrum Sub-sector



Legend: S (strength), W (weakness), O (opportunity), T (threat) Source: The JICA Study Team

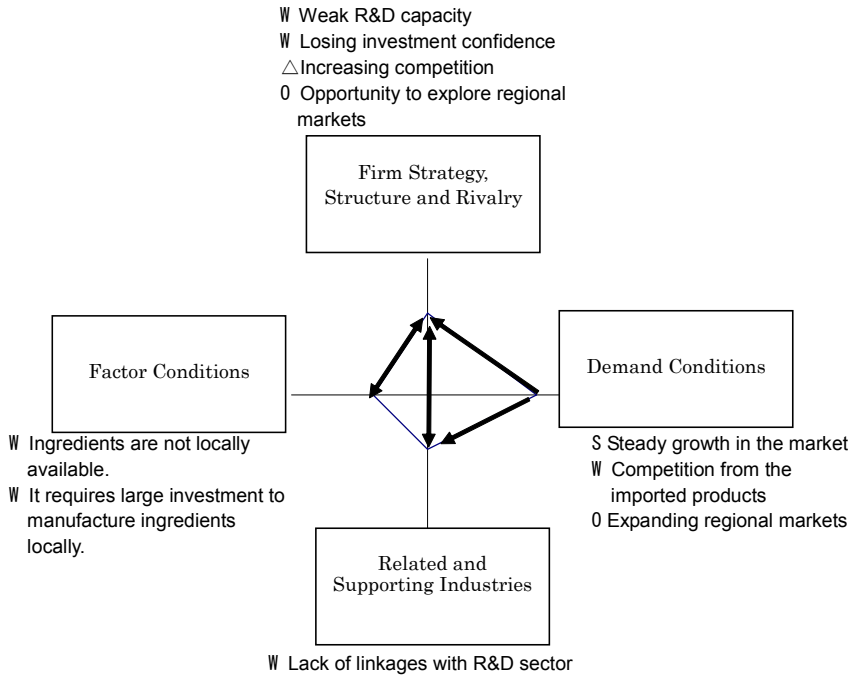
Products serving as suppliers to the major domestic sub-sector

There are many chemical enterprises working as supporting industries of other major sub-sectors such as glue and ink for food packaging, leather dye, paints for cars and construction. The demand conditions of such enterprises rely on the sub-sector they are serving. The raw materials are mainly imported. If this is to be replaced by domestic production, large investment and marketing strategy which would cover the investment cost shall be required. Deterioration in fundamental conditions does not motivate most of the investors to take such a risk.

Consumer products manufactured from imported materials

Enterprises producing consumer products from imported material have a relatively weak position in terms of factor conditions. Yet, market size is presumed to be steadily increasing in spite of the presence of imported products. This sub-sector can enjoy expanding markets targeting regional markets and can explore growth opportunities. Shoe cream and polish as discussed in 5.3.2 (3) are a good example where their export grew by 160% annually between 2002 and 2004. The notable supporting industry of this sub-sector, at this moment, is only packaging. Because of increasing competition from imported products, fundamental conditions in Kenya have to improve so that Kenya can demonstrate comparative advantages as the regional production hub.

Figure A-9 Diamond Model of Chemical Consumer Products manufactured from imported materials

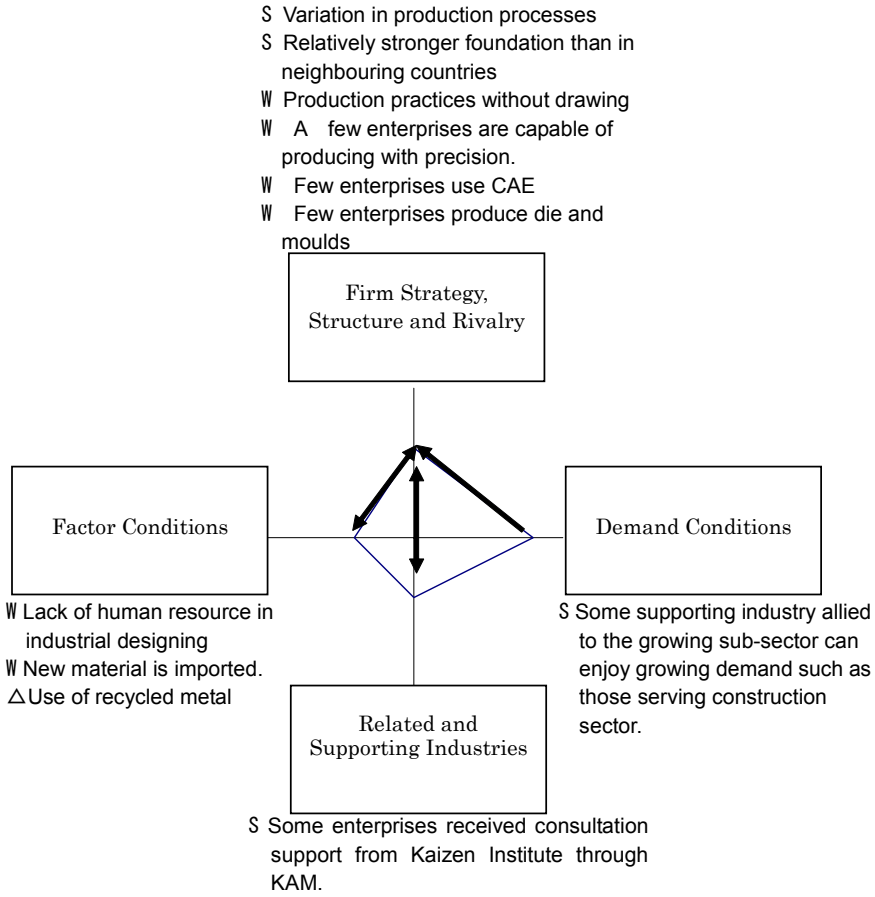


Legend: S (strength), W (weakness), O (opportunity), T (threat)
Source: The JICA Study Team

9) Metal and metalwork

Metalwork is one of the dominant sub-sectors as it is the 6th largest contributor to the total value-addition and 3rd largest contributor to employment within large enterprises (See Table 9-2). Kenya has a capacity to manufacture a range of metal products including construction pipes, automotive parts, home utensils, containers, cables and handicrafts, but companies undertaking moulding and casting are few. The components supplied for construction and telecommunication network are the ones enjoying growing markets. This sub-sector is also popular among the *jua-kali* sector because of easy entry with simple machinery. Majority of companies lack technology for precision processing. Most companies utilise second hand machinery and scrap metal while a few companies are equipped with modern machinery. Some components are supplied to the automotive sub-sector, but hardly any to the electrical sub-sector. Electrical assemblers are generally unaware of the existence of a few good companies and are relying on imported components. Use of computer aided engineering (CAE) is still rare. Even variation in CAD is small. The companies adopting CAD use mostly AutoCAD, mainly two dimensions while majority of micro, small and medium enterprises do not have the capacity of designing. In spite of the variations in production processes, there is much room for technological upgrade.

Figure A-10 Diamond Model of Metal and Metalwork

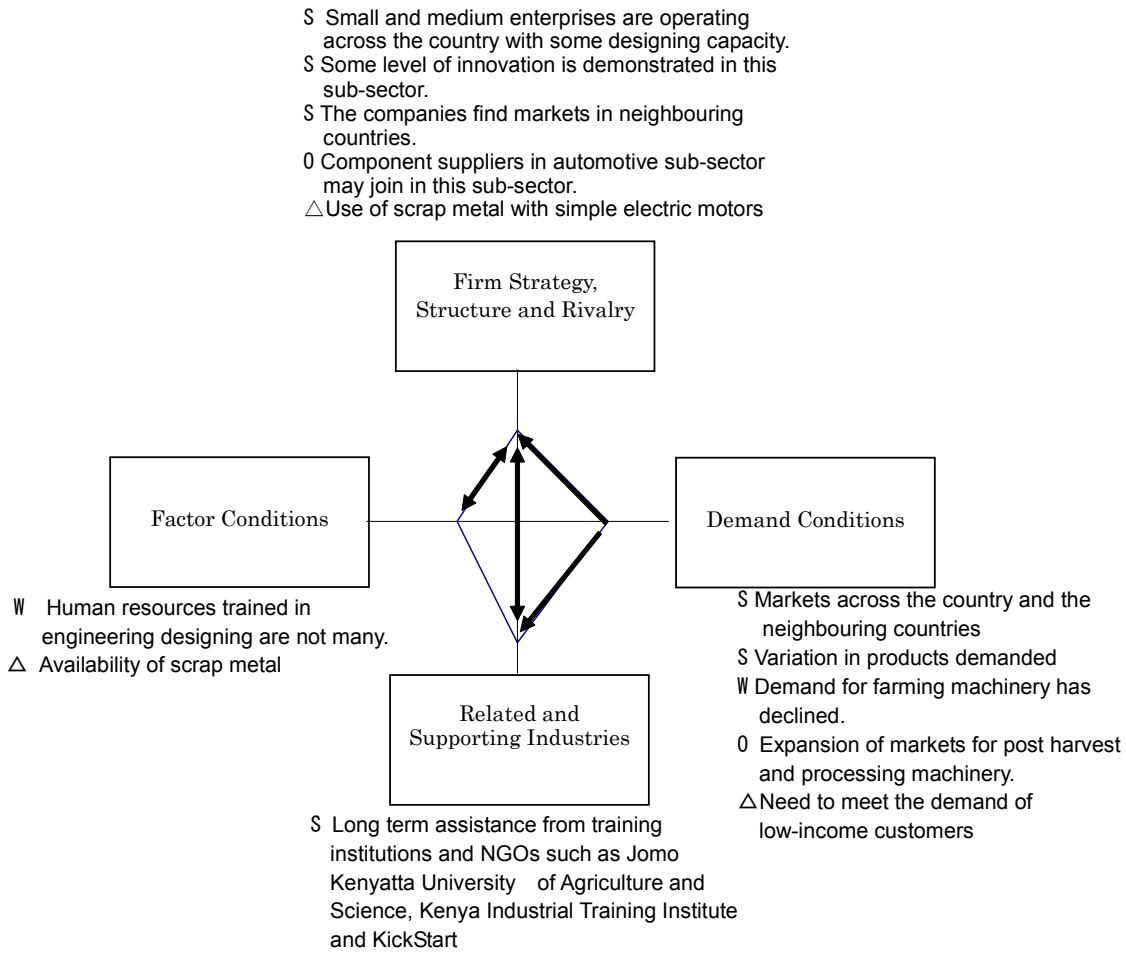


Legend: S (strength), W (weakness), O (opportunity), T (threat) , △ (neutral, but influential)
Source: The JICA Study Team

10)Agro-processing Machinery

Agro-processing machinery includes those for farming, post harvest, and processing. The demand for farming machinery is declining, but the demand for post harvest and processing is expected to grow as it is necessary to expand processing activities in the rural area in stead of trading in raw form. Agro-processing machinery manufactures, comprised mostly of small or medium scale enterprises that can be found across the country. They operate close to the markets and make products on order. Most products are made from scrap metal with simple electric motors. There are also tractor assemblers, but due to the decline in farming, local sourcing of components was stopped and now use knock down kits. Designing capacity is a prerequisite in this sub-sector, but the labourers trained in engineering designing are not many. Although the size of the sub-sector is small, creativity and innovativeness are demonstrated in this sub-sector. Many companies are also find markets in the neighbouring countries. The development of agro machinery has been assisted for a long time through institutions and NGOs such as the Jomo Kenyatta University of Agriculture and Technology (JKUAT) and KickStart (formerly called Approtec). Because of the decline in demand in automobile sub-sector, some automotive component manufacturers plan to shift to this sub-sector.

Figure A-11 Diamond Model of Agro-processing Machinery

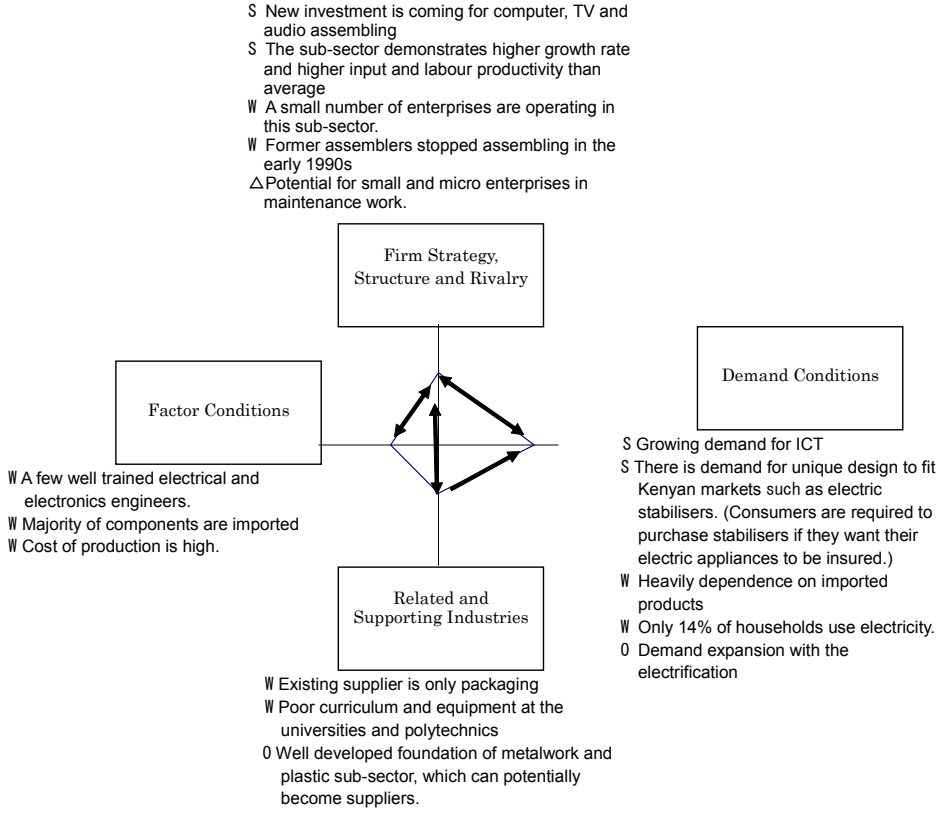


Legend: S (strength), W (weakness), O (opportunity), T (threat)
Source: The JICA Study Team

11) Electrics and electronics

The capacity of electrics and electronics sub-sector is low. The market is flooded by imported products, even simple equipment such as radios. In addition, the latest census shows that only 13.5% households used electricity in 1999. There are only 69 formal enterprises operating in this sub-sector with contribution of 2% value addition of the manufacturing sector. The main reasons for such small contributions include i) availability of competitive imported products; ii) small market size; iii) underdeveloped component markets and iv) insufficient training in universities and polytechnics. The main players in this sub-sector are switch board, voltage stabilisers and car battery makers. These existing manufacturers utilise unique market conditions in Kenya such as voltage upsurge. Former assemblers stopped assembling and moved into importation and maintenance work in the early 1990s. Yet, the electrical and electronics sub-sector has received the third largest FDI since 2001 (See Table 9-5). New assembling has started for computers, TVs and audio players. These investors are from South Africa, China, Korea, Malaysia, and Turkey. The assemblers now procure only packaging material locally while all others are imported. Yet, Kenya has a well developed plastic and metalwork sub-sectors, which could potentially supply the assemblers. Although the size of this sub-sector is still small, its performance is not bad in terms of growth rate (7%), input productivity (56%) and labour productivity (994,000 Ksh/labourer) (See Table 9-2). Because Kenya is now putting an effort on universal access to the Internet, the demand for electronic equipment for the use of ICT is expected to expand rapidly. Currently, the dominant supporting industry for ICT within the manufacturing sector is only metallic cable makers. Market opportunity for ICT should be exploited by more manufacturers, and there is also a need for expansion of maintenance work, which can provide market opportunities for micro and small enterprises.

Figure A-12 Diamond Model of Electrical and Electronics



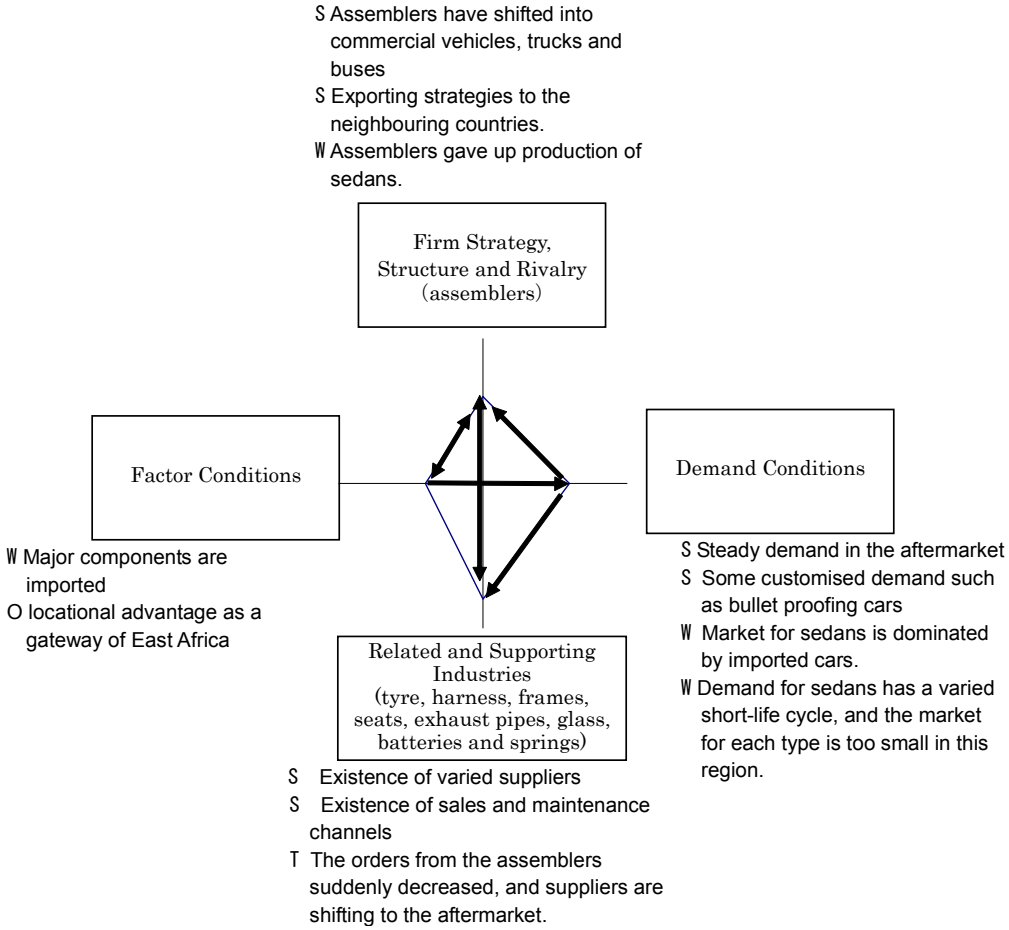
Legend: S (strength), W (weakness), O (opportunity), T (threat)

Source: The JICA Study Team and Workshop Presentation Paper of Group 2 on 28 June, 2006

12)Automotive

The demand conditions of the automotive sub-sector are not favourable due to the domination by imported sedans. Because sedans have wide variations with short life cycle, the market size of each model is too small to sustain profitability. The global car manufactures recently gave up production of sedans in Kenya and decided to concentrate on African production centres in Egypt and South-Africa. Accordingly, domestic assemblers shifted their production to commercial cars such as mini buses, trucks, buses and commercial vehicles. The assemblers mostly utilise imported knocked-down kits, but they also have some local suppliers for tyres, harness, frame, seat, exhaust pipes, glasses, batteries, and springs. Simple assembling leads to very little value addition, so some companies engage in elongation of chassis and armoured body building to increase value addition. However, as the three assemblers compete in the small Kenyan market, production for each company is from 2,000 to 4,000 units per annum and is running under capacity. Due to the sudden decline of the production volumes caused by the ceasing of sedan production, the suppliers are also suffering and are forced to shift to aftermarket services. There is concern that the developed supply chain network may collapse or dwindle.

Figure A-13 Diamond Model of Automotive

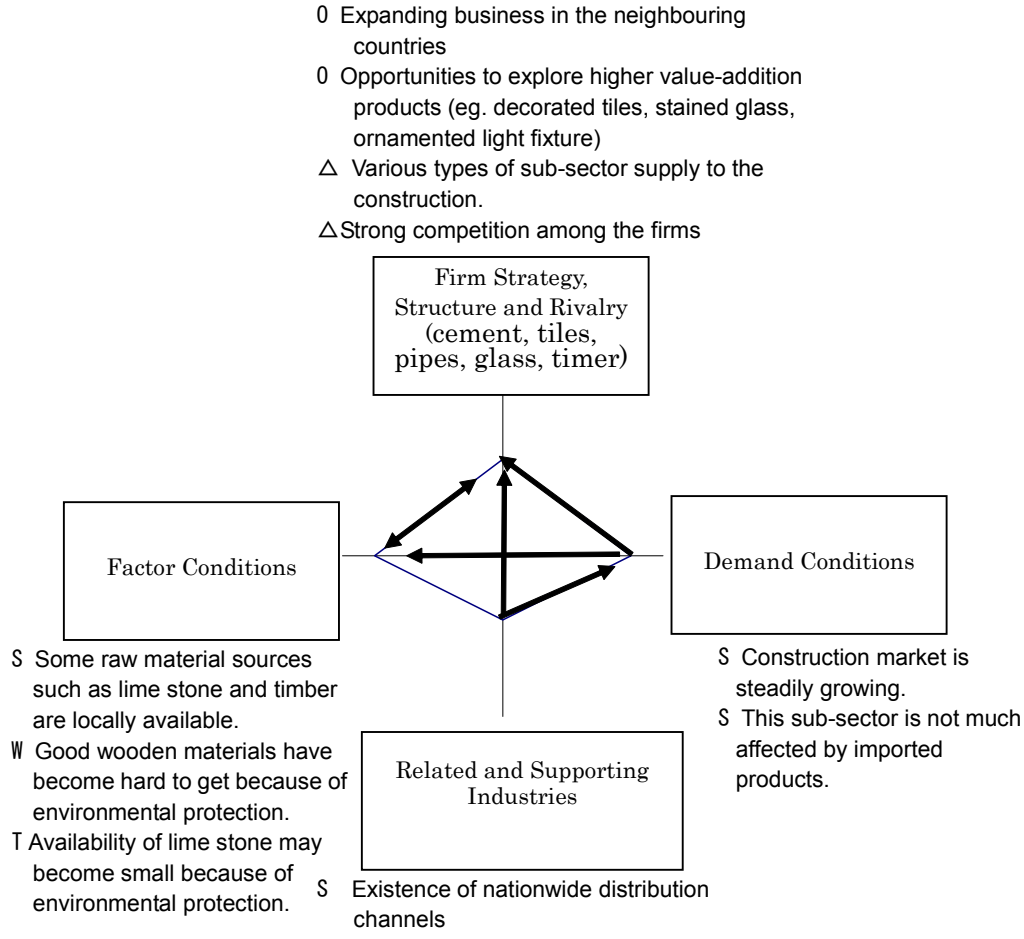


Legend: S (strength), W (weakness), O (opportunity), T (threat), △ (neutral, but influential)
Source: The JICA Study Team

13) Construction Material

Construction materials include cement, tiles, pipes, glass and timber. The demand conditions for construction materials look stable. Value addition of the construction sector grew by 1.6% between 2000 and 2004 [Central Bureau of Statistics (2005) p.27]. Apart from the wooden sub-sector, metallic products grew by 1%, and non-metallic mineral products grew by 8% between 2001 and 2005 (See Table 9-2). Processing requires simple technologies, thus many companies operate in the sub-sector. Competition is getting stronger although competition itself is not a weak condition as long as it operates in the fair market. Input productivity is high for the locally sourced cement and timber. Deposits of limestone for cement are estimated as at least 35 years [KAM (2006) p.221]. The usage of the mineral reserves has to be balanced with environmental protection like the case of timber. This sub-sector can also enjoy more value-adding products such as designed tiles, stained glass and ornamented light fixtures.

Figure A-14 Diamond Model of Construction Material

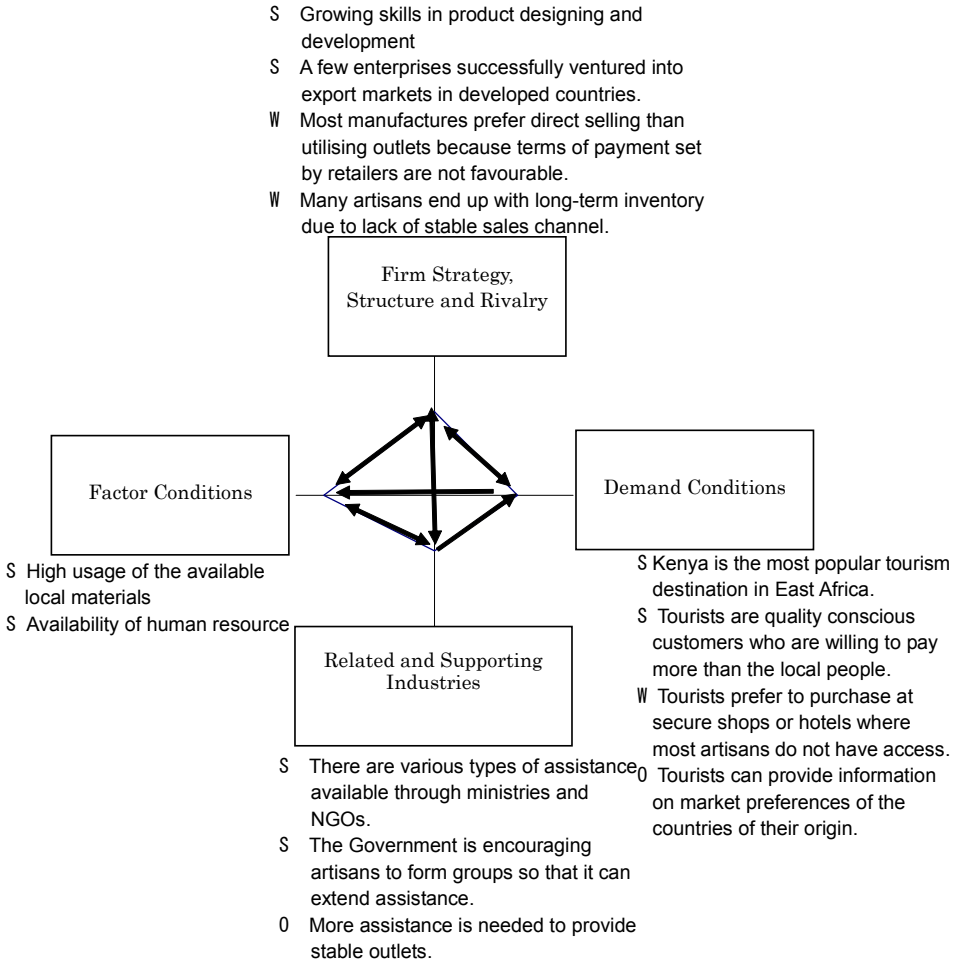


Legend: S (strength), W (weakness), O (opportunity), T (threat), △ (neutral, but influential)
Source: The JICA Study Team

14)Handicrafts

This sub-sector is categorised as manufacturing products for tourists. Handicrafts utilise available local resources such as wood, leather, limestone, clay, wool, banana fibre and sisal. Most manufacturing is undertaken by micro, small and medium enterprises. Product variety has been widened, and production skills have been upgraded. Tourists are likely to pay more than what the locals may pay. Tourists are also quality conscious customers. If the manufacturers and retailers can take customers' preferences seriously, they can get the information on the market preference of their countries and gets a hint for exporting. There are a few successful enterprises which are successfully exporting their products to the developed countries. Exporting products include ceramic necklaces and sisal handbags. These companies have utilised exhibitions and homepages for marketing abroad. Customers abroad prefer to purchase those goods due to their uniqueness. Although this is a niche market abroad, contribution to job employment in Kenya is considerable. However, majority of micro enterprises or artisans do not have stable outlet chains. Most manufactures prefer to make direct selling than using retailers because the terms of payment from the retailers are not favourable. Yet, the tourists prefer to purchase at secure shops, and artisans end up with a long-term inventory. The Government is encouraging the artisans to form groups so that assistance can be extended. Linking to the market shall open opportunities not only for expansion of sales to tourists but also exporting.

Figure A-15 Diamond Model of Handicraft



Legend: S (strength), W (weakness), O (opportunity), T (threat), △ (neutral, but influential)
Source: The JICA Study Team

Annex 6　102 Companies in Kenya

102 companies in Kenya

Horiguchi has visited 102 companies in Kenya to survey on industrial productivity under MOTI (Ministry of Trade and Industry Kenya) from Jun/06 and now continues.

For developing Kenyan industries

Many companies need the following support.

1. **Collaboration with other companies**
2. **Power up of marketing capability**
3. **Power up of technical capability**
4. **Power up of management capability**

1. Collaboration with other companies

1. Collaboration with other companies

① **The present condition in Kenya**

The collaboration between Kenyan SMEs is not enough. Therefore, **high-value added products** cannot be developed.

For example, the plastic molding companies, sheet metal pressing companies and Kenya government do not know that Kenya has many die companies. Therefore, almost all dies are imported from India etc, and business chance is flowing out to overseas.

Die company in Kenya

Plastic molding company in Kenya

1. Collaboration with other companies

② **The present condition in SE Asia**

From 1990 in Thailand, many Japanese private company's staff have researched SE Asian SMEs which may become their supplier. Therefore, Thailand has made many SME's network easily.

Japanese private company's stuff in Thailand
(Center is Horiguchi)

1. Collaboration with other companies

③ **What Kenya should do from now on?**

Kenya has not many Japanese (Foreign) companies yet. Therefore, it is impossible that the Japanese private company's staff make the Kenyan SME's network. From this cause, Kenyan supporting organizations must perform a **Field survey** for Kenyan SMEs to make the SME's network by themselves.

Field survey

2. Power up of marketing capability

2. Power up of marketing capabilities

① **The present condition in Kenya**

Main purpose of marketing is researching the needs of dealing companies. The trend now is that, many foreign companies are **relocating** to another countries which has many SMEs.

2. Power up of marketing capabilities

② **The present condition in SE Asia (1)**

In SE Asia and China, **"Buyer's trade fairs"** are opened by Japanese companies in many cities every year. In the fair, Japanese company disassembles own products, and search SMEs which can produce their parts. Therefore SE Asian SMEs have many opportunities for doing marketing research.

Buyer's trade fair

2. Power up of marketing capabilities

② **The present condition in SE Asia (2)**

In SE Asia and china, SE Asian SMEs are performing **"Teardown"** (disassemble dealing company's goods). By the Teardown analysis, they can find parts which they can produce. Therefore they can start dealing with Japanese companies easily.

Teardown workshop in Japan by Horiguchi

2. Power up of marketing capabilities

③ **What Kenya should do from now on?**

Kenyan supporting organizations should hold a **"Buyer's trade fair" and "Teardown study mission".** By using these methods Kenyan SMEs can perform marketing research and can start to deal with Japanese companies quickly.

Teardown workshop in Mombasa by MOTI and Horiguchi

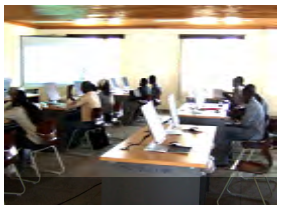
Teardown workshop in Nairobi by MOTI and Horiguchi

3. Power up of technical capability

3. Power up of technical capabilities

① **The present condition in Kenya**

Kenyan graduate's technical capabilities are the same as that of SE Asia. However, **"After graduation"** there are few companies which can improve the graduates capabilities by **OJT** (On The Job Training) hence our current problems.



educational equipments

educational equipments

3. Power up of technical capabilities

② **The present condition in SE Asia**

In SE Asia, many graduates are employed by Japanese companies. They then study practical technology by **OJT** (On The Job Training). After which, they can **Switch jobs** to local companies. Consequently, the technical capabilities of SE Asian SMEs can go up abruptly.

3. Power up of technical capabilities

③ **What Kenya should do from now on?**

In Kenya, good companies which can improve graduate's capability by OJT are not enough in number, therefore enhancing our SME's technical capabilities is difficult. Kenya should utilize **EPZ** and should welcome a company more to employ or train gradates.

4. Power up of management capability

4. Power up of management capabilities

① **The present condition in Kenya**

Over 90% of the company which I visited has manager who is not African people. The reason will be lack of business education system in Kenya.

4. Power up of management capabilities

② **The present condition SE Asia**

From 2000, Ministry of Industry in Thailand has introduced Japanese **SMEC (SME management consultant) system**. Now Ministry has 400 Thai SMECs. They have instructed on business management for 1,000 Thai SMEs from 2000.

Horiguchi and Thai SMECs

Horiguchi and Thai SMECs

4. Power up of management capabilities

③ **What Kenya should do from now on?**

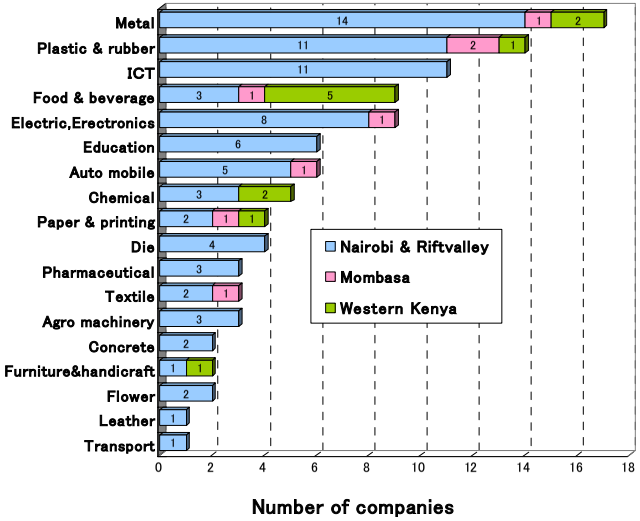
Kenya should introduce Japanese **SMEC system** the way Thailand did. From here Kenyan SMEC will instruct on Management methods for the Kenyan SMEs. Therefore, the management capability of Kenyan SMEs will go up abruptly.

Instruct for SME by Thai SMECs

Instruct for SME by Thai SMECs

Result of field survey

Details of the visited 102 companies



1. Metal and Mechanical machines (17 companies)

Steel recycling (DEVKI)
The company collects scrap metal and melts it in electric furnaces. From this, it manufactures agricultural ploughs and steel rods. It's main worry is huge electricity costs incurred in the operation of its electric furnaces, and also it's worried about the possibility of **scrap-metal running out of supply in 2-3 years**.

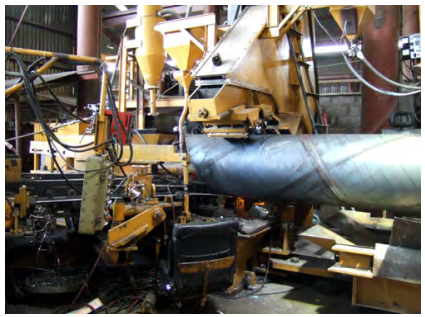
Aluminum Press (Crystal)
The company melts scrap aluminum using oil fired furnaces. And press aluminum pots for the United Nations. Many Kenya, Uganda and Tanzanian households still use firewood to cook, so the **demand for aluminum pots is remain high**.

Factory for Melting iron

1. Metal and Mechanical machines (17 companies)

Steel pipe (ASP)
The company is bending and welding a steal plate for produce steel pipe. And binding sheet or powder coating to prevent oxidization by water. **But all steal are imported from SA etc**.

Filter and brake pad (Sunny)
The company produce filter and brake sue for vehicles. **But still they are using asbestos for produce brake pad. The asbestos are imported from Kazakhstan and Zimbabwe.**



Binding steel pipe

1. Metal and Mechanical machines (17 companies)

Wheel chair (Undugu)
All workers (5) are handicapped persons. They can't get job therefore they found the company by the selves. They produce wheel chair for outdoor. They found market in Sudan and Somalia, **but now they have not sufficient capital for mass production.**

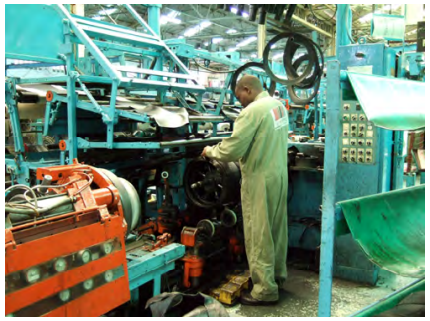
Kitchen instrument (CES)
The company teardown Italy instrument. And they produce similar instrument for Kenyan restaurants.

Wheel chair for outdoor

2. Plastic and Rubber (14 companies)

PVC pipes(Shiv)
By Extrusion molding, the company produces a variety of pipes used for i.e. water, sewer, and electric piping etc.
In western area they have no competitor, therefore they van get big profit.

Tire (Sameer)
The company manufactures tires **basically suited for the Kenyan market and roads.**



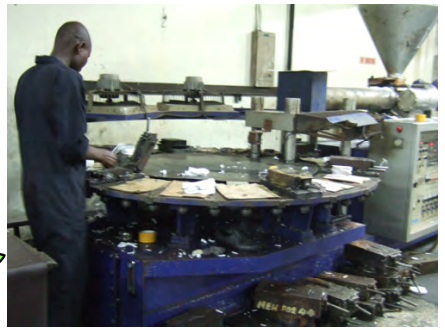
Binding rubber for tire

Bucket (NPL)
The company produce bucket by injection molding and blow molding
but dies are imported from India.

2. Plastic and Rubber (14 companies)

Plastic bag (PIL)
The company produce plastic bag by blow molding and printing. **Now Quality control (thickness) is difficult by voltage limit.**

Sandal (Umoja Rubber)
The company manufactures sandal. And **exporting to Japan (Takashimaya).**



Molding sandal

Shoe (Umoja Rubber))
The company manufactures shoe of a rubber sole, but **clothes are imported from china.**

3. ICT (11 companies)

Cable wire maker (East African Cable)
With raw materials imported from Zambia, metal cables are produced for the local market. **The company is high profitable company.**

Winding machine for metal cable

Call centre (Ken Call)
The company offers services to U.S companies. They have also started "Back-office services." Since the people of Kenya speak English fluently and without much accent, it will be a strong selling point over India. **But they have not taken big market by Kenyan low speed network. Delay of plan for optical cable from Mombasa to Nairobi have bad effect.**

4. Food and Beverages (9 companies)

Soda and Drinking water (Softa Bottling)
This company manufactures soda products. Branded bottles are washed, filled and capped on an automated production line.

Fish Processing (Peche)
The company buys fish(nile perch) directly from Lake Victoria, and exports to Japan and USA. The remaining fish is sold cheaply to the locals.
The company also wishes to start producing high value added goods e.g. Fish sausages, Fish oil and Cosmetics.

Remaining fish

4. Food and Beverages (9 companies)

Oil and soap (Pwani)
This company refining palm-oil and producing soap from bottom oil.
But palm-oil is imported from Malaysia.

Refining oil

Flour and bread (United Miller)
The company produce flour for human and animal, and produce bread from flour. Their equipments become old, **but they can not get technical education for new equipment.**

5. Electric & Electronics (9 companies)

PC company (Mecer)
The company produces its own brand of computers locally. It's production capacity is 300 pieces per month.
But all parts (include container box) are imported now.

Wind generator (Craft Skill)
They design by themselves and produce by using used-cars gearbox and exporting to Tanzania, Uganda etc.


Wind generator

5. Electric & Electronics (9 companies)

Home electric goods (SANYO)
Since the company (Sanyo) had a small market assembling parts has stopped.
Now the company is performing only repair.

Electric Switch control Panel (IET)
Panel have produced to counter electric power-surge's and fluctuations. They get technical training from Siemens. **They export control panel to Uganda and Tanzania.**


Electric Switch control Panel

6. Education (6 companies)

Mechanical engineering education (KPLC)
The machine for education become very old (1985). They want to buy new machine, but teacher has no knowledge of new machine.

Electric engineering education (KPLC)
All electric machine for education have been donated at same time (1990). Therefore all machine become old together.

Machine in education

7. Automobile (6 companies)

Automobile (Kenya Vehicle)
The three companies have to compete for the small Kenyan market. Production for each company is 2,000-4,000 units/Year. But,Toyota South Africa produced 124,000 units in the same year 2005. Low production in Kenya has led to "Manual operation line" unlike in the developed counties where the line are automated. Vehicle body's fabrication in Kenya is done by using old machinery.

Manufacture line for bus

Automobile Leaf Spring (Auto Spring)
Production involves Spring steel imported from South Africa. The Leaf Spring manufactured are mainly meant for Trucks.

8. Chemical (5 companies)

Coils and mosquito chips (Kapi)
This company manufactures mosquito coils and mos-chips using pyrethrum. However due to low profits to the pyrethrum farmers, **the production of pyrethrum in Kenya has gone down. And, now a days coil products face stiff competition from cheap imports from India and Malaysia.**

Manufacture line for mosquito coils

9. Paper and printing (4 companies)

Book manufacture (Kitabu)
Donors fund the production of school books by this company, therefore **its purchases and production depends entirely on donor's founding.**

Paper milling (Pan Paper)
The company has supported the government forest. But 31-year agreement ended in 2003. Since then, **the contract has been renewed every year with uncertainty of the future.**

Stripped woods

10. Die maker (4 companies)

Die for plastic moulding (Hard Tech)
The company produces dies for injection molding and blow molding. They design dies using CAD technology, and they produce dies using electric eroding machine and metalworking machines.

Die for plastic molding (Plas Kit)
They design dies using CAD technology, then translate to CAM-data by computer. Therefore they produce die by MC (machining center) automatically.

Die for plastic molding

11. Pharmaceutical (3 companies)

Generic medicine (Universal)
Materials imported from America and China are used to manufacture low cost generic medicines for Malaria etc. the company export COMESA. **But Almost no person who have business administration is in Kenya. Therefore all manager are from India.**

Manufacture line for bus

12. Textile (3 companies)

Sisal bags company (Black Gold)
Sisal bags are sourced from Machakos and Kitui in Kenya. Then Straps are attached to the bags according to buyers' requirements.
2-3 times in a year, the company visited Japan for sale's by the help of a Japanese organization called "JETRO".

Factory for Sisal bags

Trousers company (EMKE)
The company has opened a factory in a Mombassa EPZ. **This company might opt to relocate from Kenya, after its AGOA agreement expire.**
And all clothes are imported from China.

13. Agro machinery (3 companies)

Tractor (Farm Engineering)
The company only assembles 4 tractors in 1 month,
using knock-down tractor parts imported from German and England.
Because the sizes of farms are becoming smaller, the market for agricultural machinery has become small.

14. Concrete Products (2 companies)

Concrete Products (Bhimji Ramji & Sons)
The company in Nairobi produce concrete products by using Ballast.
The company continued unearthing ballast for 60 years from the inside of its site. **But now dispute has occurred cause by apartment in near.**

15. Furniture/Handicraft (2 companies)

Furniture (Furniture International)
With raw material import's from Congo, the company manufacture's furniture by using machinery from German and Italy.
Nowadays mass produced plastic furniture from china has slowly penetrated our market and are 30% cheaper in price.

Handicraft (Kapi)
The company's owner graduated from the school of designing in Britain. **And all goods are designed by her. The Home Page is put on server in the USA to avoid Kenyan low speed network.**

16. Flower (2 company)

Rose (Zena)
The companies produce rose.
One company hope to export rose to Japan, **Therefore they are looking for Japanese breeder and dry-flower engineer.**

Rose (Sher)
The company produce 1.5million roses/day and export to Netherlands. The company have another same size factory in Ethiopia, and **Ethiopia factory is better than Kenya in Tax, Road, Support. Therefore they have plan of factory relocation.**

17. Leather (1 company)

Leather processing factory (Leather Industry)
The company produced leather from raw hides purchased locally.
Washing, drying and dyeing of the products is done at the factory.
100% of products are exported to India and S.A..
Since China buys raw hides directly from our country, local market prices has gone up.
Due to this, number of leather processing companies reduced from 23 to 6.

18. Transport (1 company)

Transport (Siginon Freight)
From Naivasha and riftvalley they transport flower by track. And hold own cold room. And transfer EU by charter freight.