The Competitive Advantage of Nations: Implications for Rwanda

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This presentation draws on ideas from Professor Porter’s articles and books, in particular, The Competitive Advantage of Nations (The Free Press, 1990), “Building the Microeconomic Foundations of Competitiveness,” in The Global Competitiveness Report (World Economic Forum), “Clusters and the New Competitive Agenda for Companies and Governments” in On Competition (Harvard Business School Press, 2008), and ongoing research on clusters and competitiveness. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording, or otherwise - without the permission of Michael E. Porter. Further information on Professor Porter’s work and the Institute for Strategy and Competitiveness is available at www.isc.hbs.edu
In 2009, Rwanda’s real GDP per capita grew 6.4%
Rwandan Export Share Trends

Source: UNComtrade (2010)
Inward Foreign Investment Flows
Rwanda, 1970 - 2008

Note: Data not available for 1994.

Source: UNCTAD (2009)
Inbound Foreign Investment Performance
Stocks and Flows, Selected Countries

Inward FDI Stocks as % of GDP, Average 2003 - 2008

East African Community
Other African countries
Asian countries

Note: Data unavailable for GDP for Gabon in 2003, GFCF for Burundi (2003), Chad (2005)
Domestic Fixed Investment Rates
Selected Countries

Gross Fixed Investment as % of GDP, 2009

- East African Community
- Other African countries
- Asian countries

Change in Gross Fixed Investment (as % of GDP), 2003 to 2009

Note: Includes inbound FDI
Source: EIU, 2010
International Aid and Assistance Flows
East African Community, 2004 - 2008

Source: World Development Indicators (2010)
What is Competitiveness?

• Competitiveness is the **productivity** with which a nation uses its human, capital, and natural resources
  – Productivity **sets the standard of living**
  – Productivity growth determines **sustainable economic growth**

• Productivity and prosperity depends on **how** a nation competes, not what industries it competes in
  – Productivity in the modern global economy arises from a **combination of domestic and foreign firms**

• **Relentless upgrading and innovation** is necessary to drive **productivity growth** and enable the standard of living to rise
  – Technology, skills, products, and organizational methods

• Nations compete to offer the **most productive environment for business**
• The public and private sectors play **different but interrelated roles** in creating a productive economy
Decomposing Prosperity

Prosperity
- Standard of living
- Inequality

Domestic Purchasing Power
- Local prices
  - Efficiency of local industries
  - Level of local market competition
- Consumption taxes

Per Capita Income
- Efficiency of local industries
- Level of local market competition

Labor Productivity
- Skills
- Capital stock
- Total factor productivity

Labor Utilization
- Workforce participation rate
  - Population age profile
- Unemployment rate
- Working hours
Determinants of Competitiveness

Inherited Endowments
Determinants of Competitiveness

- Fiscal policy: public spending aligned with revenues over time
- Monetary policy: low levels of inflation
- Macroeconomic management: avoiding structural imbalances and cyclical overheating
Determinants of Competitiveness

- Human Development: basic education and health care
- Rule of Law: property rights and due process
- Political Institutions: stable and effective political and governmental processes and organizations
Determinants of Competitiveness

- Microeconomic Competitiveness
  - Quality of the National Business Environment
  - State of Cluster Development
  - Sophistication of Company Operations and Strategy

- Macroeconomic Competitiveness
  - Social Infrastructure and Political Institutions
  - Macroeconomic Policies

- Inherited Endowments

The external business environment conditions supporting company productivity and innovation.
Quality of the Business Environment

Context for Competition

- Local rules and incentives that encourage investment and productivity
  - e.g. incentives for capital investments, intellectual property protection, corporate governance standards
- Open and vigorous local competition
  - Openness to foreign competition
  - Competition laws

Factor Inputs

- Access to high quality business inputs and infrastructure
  - e.g., human resources, capital, physical infrastructure, administrative rules, scientific and technological infrastructure

Demand Conditions

- Sophisticated and demanding local customers and needs
  - e.g., Strict quality, safety, and environmental standards
  - Consumer protection laws

Related and Supporting Industries

- Availability of suppliers and supporting industries

Many things matter for competitiveness

Successful economic development is a process of successive upgrading, in which the business environment improves to enable increasingly sophisticated ways of competing.
Ease of Doing Business
Rwanda, 2010

Ranking, 2010 (of 183 countries)

Favorable

Unfavorable

Rwanda per capita GDP rank: 157

Note: GDP per capita only available for 170 countries in sample
Determinants of Competitiveness

Microeconomic Competitiveness
- Quality of the National Business Environment
- State of Cluster Development
- Sophistication of Company Operations and Strategy

Macroeconomic Competitiveness
- Social Infrastructure and Political Institutions
- Macroeconomic Policies

Inherited Endowments

The presence of a concentration of firms in particular fields, together with specialized skills, infrastructure, and supporting institutions, enabling productivity through externalities across related entities.
State of Cluster Development
Tourism Cluster in Cairns, Australia

- Public Relations & Market Research Services
- Food Suppliers
- Property Services
- Maintenance Services
- Travel agents
- Tour operators
- Hotels
- Attractions and Activities e.g., theme parks, casinos, sports
- Restaurants
- Airlines, Cruise Ships
- Local retail, health care, and other services
- Local Transportation
- Souvenirs, Duty Free
- Banks, Foreign Exchange
- Government agencies e.g. Australian Tourism Commission, Great Barrier Reef Authority
- Educational Institutions e.g. James Cook University, Cairns College of TAFE
- Industry Groups e.g. Queensland Tourism Industry Council

Sources: HBS student team research (2003) - Peter Tynan, Chai McConnell, Alexandra West, Jean Hayden
Kenya’s Cut Flower Cluster

Government Agencies, NGOs & Industry Associations
- Horticultural Crops Development Authority (HCDA)
- Government Export Policies targeting Horticulture
- Government Policy for Revitalizing Agriculture; National Export Strategy; Export Promotion Council (EPC)
- Non-Governmental Organizations
  - The Rural Enterprise Agri-Business Promotion Project (USAID, CARE, IFAD)
  - Horticultural Produce Handling Facilities Project (JIBIC)
- Trade & Industry Associations
  - Kenya Flower Council (KFC)
  - Fresh Produce Exporters Association of Kenya (FPEAK)
  - Regional Growers Associations e.g., North & South Kinangop; Lake Naivasha, etc

Education, Research & Quality Standards Organizations
- Research Institutions:
  - Kenya Agricultural Research Institute (KARI)
  - International Center for Insect Physiology and Ecology (ICIPE)
- Public universities with post graduate degrees in horticulture:
  - University of Nairobi; Jomo Kenyatta University of Agriculture & Technology
- Quality & Standards:
  - EUREGAP Standard (UK & Dutch Supermarkets)
  - Kenya Plant Health Inspectorate Services (KEPHIS)

Sources: MOC student team research by Kusi Hornberger, Nick Ndiritu, Lalo Ponce-Brito, Melesse Tashu, Tijan Watt, Harvard Business School, 2007
The Kenyan Cut Flower Cluster
Trade Performance

Kenyan Cut Flower Exports in millions US $

Kenyan Cut Flower World Export Market Share

Underlying data drawn from the UN Commodity Trade Statistics Database.
Cluster development is a long-term process in which a location accumulates skills, technology, and a critical mass of firms and supporting institutions.

National Cluster Export Portfolio
Rwanda, 2003-2008

Change in Rwanda’s average world export share: +0.0022%

Agricultural Products
Hospitality and Tourism
Transportation and Logistics
Metal Mining and Manufacturing
Processed Food

Jewelry, Precious Metals and Collectibles
Leather and Related Products
Footwear
Construction Materials
Biopharmaceuticals

Exports of US $11 million =

Change in Rwanda’s world export market share, 2003–2008
Clusters as a Tool For Economic Policy

- A forum for collaboration between the private sector, trade associations, government, educational, and research institutions
- Brings together firms of all sizes, including SME’s
- Creates a mechanism for constructive business-government dialog
- A tool to identify problems and action recommendations
- A vehicle for investments that strengthen multiple firms/institutions simultaneously
- Fosters greater competition rather than distorting the market
Determinants of Competitiveness

**Microeconomic Competitiveness**
- Quality of the National Business Environment
- State of Cluster Development
- Sophistication of Company Operations and Strategy

**Macroeconomic Competitiveness**
- Social Infrastructure and Political Institutions
- Macroeconomic Policies

**Inherited Endowments**

- The internal company skills, capabilities, management practices required to attain a given level of productivity and innovation

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Turkey’s Competitiveness Profile, 2009

Country Competitiveness (64)

Macroeconomic Competitiveness (71)
- Political Institutions (92)
- Rule of Law (75)
- Human Development (73)

Microeconomic Competitiveness (53)
- Macroeconomic Policy (68)
- Business Environment Quality (56)
- Company Sophistication (41)

Note: Rank versus 128 countries; overall, Turkey ranks 57th in 2008 PPP adjusted GDP per capita and 64th in Global Competitiveness
Geographic Influences on Competitiveness

- World Economy
- Broad Economic Areas
- Groups of Neighboring Nations
- Nation
- States, Provinces
- Cities and Metropolitan Areas
- Rural Regions
Sub-National Regions and Competitiveness

- Economic performance **varies significantly** across sub-national regions (e.g., provinces, states, metropolitan areas)
- Many essential levers of competitiveness reside at the **regional level**
- Region’s **specialize** in different sets of clusters / activities
- **Cluster strength** directly impacts regional performance
- Each region needs its own distinctive **competitiveness agenda**
- Competitiveness requires **effective policy collaboration** between regions and the national government

- **Decentralization** of economic policy is especially important in large countries to foster regional specialization, internal competition, and accountability
Highly productive and productivity rising versus U.S. Average


Notes: District of Columbia: $126,407, 2.63%. Growth rate calculated as compound annual growth rate (CAGR).
Specialization of Regional Economies
Leading Clusters by U.S. Economic Area, 2007

Boston, MA-NH
Analytical Instruments
Education and Knowledge Creation
Medical Devices
Financial Services

Chicago, IL-IN-WI
Metal Manufacturing
Lighting and Electrical Equipment
Production Technology
Plastics

Pittsburgh, PA
Education and Knowledge Creation
Metal Manufacturing
Chemical Products
Power Generation and Transmission

San Francisco, CA
Aerospace Vehicles and Defense
Information Technology
Entertainment
Fishing and Fishing Products

Los Angeles, CA
Entertainment
Apparel
Distribution Services
Hospitality and Tourism

Dallas
Aerospace Vehicles and Defense
Oil and Gas Products and Services
Chemical Products
Transportation and Logistics

Houston, TX
Oil and Gas Products and Services
Heavy Construction Services
Construction Materials

Raleigh-Durham, NC
Education and Knowledge Creation
Biopharmaceuticals
Communications Equipment
Textiles

New York, NY-NJ-CT-PA
Financial Services
Biopharmaceuticals
Jewelry and Precious Metals
Publishing and Printing

Atlanta, GA
Transportation and Logistics
Textiles
Motor Driven Products

San Diego, CA
Medical Devices
Analytical Instruments
Hospitality and Tourism
Education and Knowledge Creation

Denver, CO
Business Services
Medical Devices
Entertainment
Oil and Gas Products and Services

San Jose-San Francisco, CA
Business Services
Information Technology
Agricultural Products
Communications Equipment
Biopharmaceuticals

Seattle, WA
Aerospace Vehicles and Defense
Information Technology
Entertainment
Fishing and Fishing Products

The Evolution of Regional Economies
San Diego

- Climate and Geography
  - Hospitality and Tourism
  - Transportation and Logistics
- U.S. Military
  - Aerospace Vehicles and Defense
  - Power Generation
  - Communications Equipment
- Bioscience Research Centers
  - Analytical Instruments
  - Information Technology
  - Education and Knowledge Creation
  - Medical Devices
  - Biotech / Pharmaceuticals

Economic Integration Among Neighboring Countries
Turkey’s Neighborhood

- Turkey sits at the crossroad between Europe and the Middle East
- Economic coordination among neighboring countries can significantly enhance competitiveness
- Integration offers greater opportunities than participation in broader economic forums (e.g., EU)
Competitiveness and the Neighborhood

• Opening **trade and investment** among neighbors
  – A nation’s **neighbors** are its most natural trading and investment partners
  – The natural path of **internationalization** for local firms is the neighborhood
  – Open trade and investment make each a more attractive location for **investment**

• Economic coordination to drive **improvements in the business environment**
  – Capturing **synergies** in policy and infrastructure
  – Gaining greater clout in **international negotiations**

• External agreements to help **overcome domestic political and economic barriers** to reform
Competitiveness Upgrading Among Neighbors
Capturing Synergies

### Business Environment

**Factor (Input) Conditions**
- Improving efficiency and interconnectivity of transportation infrastructure
- Enhancing regional communications
- Creating an efficient energy network
- Linking financial markets
- Opening the movement of students for training or higher education

**Context for Strategy and Rivalry**
- Eliminating trade and investment barriers within the region
- Simplifying and harmonizing cross-border regulations, paperwork and visas
- Coordinating antitrust and competition policies

**Demand Conditions**
- Harmonizing environmental and energy standards
- Harmonizing product safety standards
- Establishing reciprocal consumer protection laws
- Opening government procurement within the region

### Macroeconomic Policy

- Coordinating macroeconomic policies
- Regional development bank
- Coordinated capital requirements

### Political Institutions and Governance

- Sharing best practices in government operations
- Creating regional institutions
  - Dispute resolution mechanisms
  - Harmonizing economic statistics
- Developing a regional position with international organizations

Related and Supporting Industries

- Facilitating cross-border cluster upgrading
The Process of Economic Development
Shifting Roles and Responsibilities

**Old Model**

- The *central government* drives economic development through policy decisions, spending and incentives

**New Model**

- Economic development is a *collaborative process* involving government at multiple levels, companies, educational and research institutions, and private sector organizations

- Competitiveness must be a *bottom-up process* in which many individuals, companies, and institutions take responsibility and act
Role of the Private Sector in Economic Development

• The competitive advantage of companies depends partly on the **quality of the business environment** at the national and regional level

• A company gains advantages from being part of a strong **cluster**

**Corporate role in competitiveness**

• Inform government on **business needs** and **constraints** bearing on company and cluster development

• Nurture local **suppliers** and attract foreign suppliers

• Work closely with local **educational** and **research institutions** to improve their **quality** and create specialized programs addressing the cluster’s **needs**

• Collaborate with other companies to enhance competitiveness through **trade associations** and other mechanisms

• **Participate actively** in national and regional competitiveness initiatives

• Focus **corporate social responsibility initiatives** on enhancing the business environment
Defining a National Economic Strategy

National Value Proposition

• What are the **distinctive competitive assets** of the nation’s economy given its location, legacy, existing strengths, rate of progress, and potential strengths?
  – What unique value as a business location?
  – In what areas of the economy / clusters?
  – Playing what roles with neighbors, the region, and the broader world?

Developing Unique Strengths

• What elements of institutional context and the business environment can be **unique strengths** relative to peers/neighbors?
• What **existing** and **emerging clusters** can be built upon?

Addressing Crucial Constraints

• What are the crucial **weaknesses constraints** that must be addressed to achieve parity with peer countries and allow the country to move to the next level?

• **Priorities** and **sequencing** are a necessity in economic development
Rwanda’s Challenges

• Relatively small home market
• Landlocked with high logistical costs
• Skill and capacity shortages
• Limited private sector and agricultural development
What is Unique About Rwanda?

- Established positions in tea, coffee, and tourism
- Unique climate and growing conditions for a range of products
- Central location on the African continent and a stable oasis among a neighborhood of 290 million people
- Low corruption
- Stable, secure, and safe
- Tidy and orderly
- Responsive government
- Streamlined business processes
- Opportunity to lead the region in many services
- Social innovator in health, education, reconciliation, gender equality, and other areas
- Disproportionate external interest in the country
Towards a Rwandan Strategic Positioning

- A safe, stable, transparent, and efficient **hub for the region**
- Among the **easiest places to do business** in Africa
- Kigali as a **vibrant capital city** with a high quality of life
- **High-value positions** in specialty agricultural products and processing
- An increasingly diversified **services** economy
- A leader in **social services and social entrepreneurship**
- Growing self-sufficiency in the manufacture of **logistically sensitive products**
- A catalyst for driving advancement in the **East African Community**
Rwanda’s Competitiveness Agenda, 2010

Business Environment

Address critical constraints in the business environment
- Logistical infrastructure
- Energy cost and access
- Training and skills development
- Land property rights
- Management capacity
- Access to risk capital
- Effectiveness in attracting foreign investment
- Urban centers outside of Kigali

Cluster Development

Activate an aggressive public/private cluster development program to accelerate the growth and upgrading of Rwandan business

Established clusters
- Specialty Agriculture
- Tourism

Emerging clusters
- Food processing
- Logistics and Transport
- Construction
- ICT services
- Business services
- Health and other social services
- Arts and Culture

Private Sector

Upgrade private sector capabilities in planning, operations, finance, and technology

Neighborhood

Lead economic coordination and integration with neighboring countries to address crucial weaknesses while maintaining Rwandan competitiveness