ITC Executive Forum

BUSINESS FOR DEVELOPMENT: IMPLICATIONS FOR EXPORT STRATEGY-MAKERS

THAILAND

COMPETITIVENESS, DEVELOPMENT AND “e”

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Executive Summary

Given the enormous changes taking place in the world trading system and the accompanying to become internationally competitive, it is important for firms (SME) in developing and transition economies and the nation to make a quantum jump of the transition from being comparative cost advantage to be competitive advantage in the world market. In parallel to this development, the Information and Communication Technology (ICT) is drastically reshaping our life, especially the business and the international trade practices by improving the speed, the productivity, and the quality of business environment. In fact the innovation and development of ICT is a major factor of the international competition in the New Economy, and in turn ICT is also a powerful tool, a must for us, of this transition to be competitive advantage. It is very important for both the nation and the firms to develop and align the collaborative strategies among themselves on how to use ICT to build the collective competitiveness, as a whole. Our goal in this paper is to develop ICT strategies for competitiveness development.

Michael E. Porter introduces his famous Competitiveness framework, Porter's model, in his study addressing the keys areas of consideration for the competitiveness development. His model is very well accepted around the world, and national strategists and business executives in many economies are using it. This paper is trying to move forward one more step by applying the Porter's competitiveness framework to address on the use of ICT in building the competitiveness advantage. We focus on the challenge and opportunities for the developing and transition economies in mapping effective strategies at both national level and the aligned individual firm level in accord to Porter's framework.

Changing World

In the new economy, the emerging information age, it is recognized that Information and Communication Technology (ICT) is shaping up our society, effecting changes from individuals to the national level and the regional level. Many the world trends and new mega management concepts, namely Globalisation, Learning Society, Knowledge-based Economy, and Collaborative Value Chain Management, in fact are developed and become reality through the invent and implementation of ICT (fig. 1).

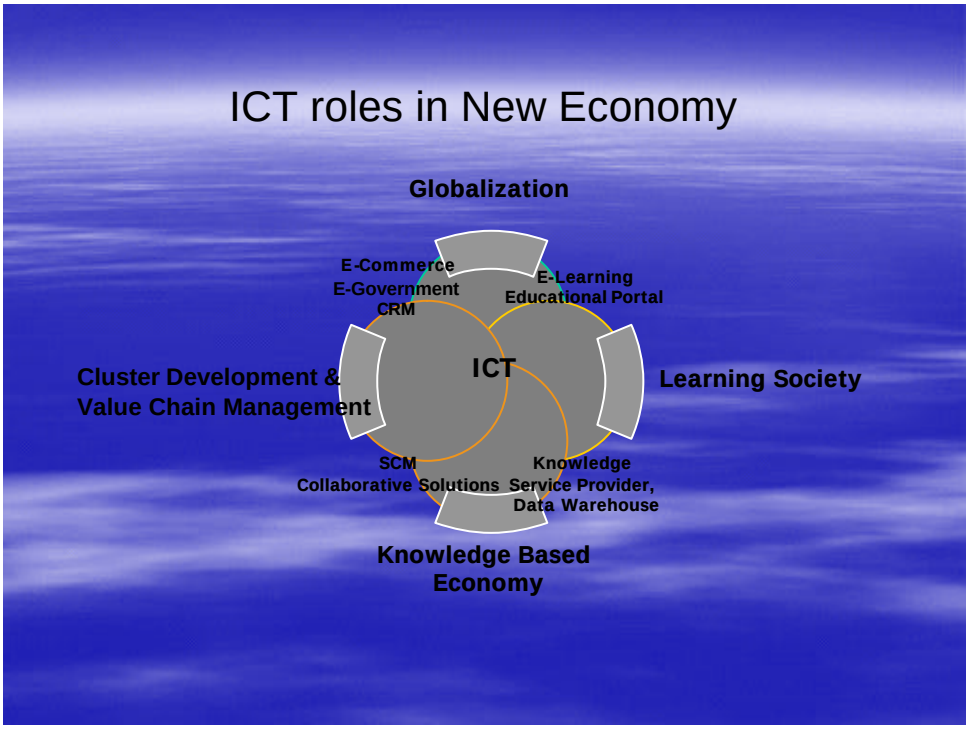

Fig. 1 The role of ICT in New Economy

The advance of the ICT causes local firms in developing and transition economies to face more competitions and the competitive advantages that any firm now processes will become smaller and less durable. It is important that the local firms must learn and begin to implement ICT as part of their regular business practice in order to becoming globally competitive and actively pursue the new business opportunities. The government also must establish ICT infrastructure, ICT regulations, and supports to facilitate and encourage local firms to make a move into this transition, i.e., to invest in ICT, employ skilled ICT people, upgrade for new ICT technology and become globally competitive. Given the dynamics and complexities of today's international market, both the national strategy and the firm strategy in term of using ICT to develop the competitiveness should be aligned to each other. Therefore some kind of standard framework for this alignment must be established and developed so that both the government and individual firm will forward in the same direction and will be automatically adaptive to each other. Porter's model on competitiveness development is found to be a very effective one and his model is applied in many business applications and environments, thus in this paper we choose Porter's model as a framework in developing the use of ICT in competitiveness development.

Porter's Competitiveness Framework

In order to be successful in driving the competitiveness of the whole system, not sub optimal, it is necessary to align both the national strategy and the individual firm strategy in such as way that both are moving along the same directions, but definitely at the different scopes or levels, i.e., at macroeconomic and microeconomic levels. Also both of them should be adaptive in coping with the dynamistic of the business environment. Therefore we are interested in a kind of a competitiveness development model or framework that is simple, understandable, applicable, and acceptable and can be standardized to strategy makers at both the national level and firm level so that all individual subsystems at firm levels will be automatically optimised in along with the direction of the national system, and vice versa. Porter explains the aggregated influences on competitiveness as a relationship and the interaction of the strategy at the national level and the firm level that due to the competition in the world economy a nation must response to this change by developing national competitiveness strategy (macroeconomic), as a result the government is promoting and facilitating the development of competitive environment to local business and industry and causing local firms to response with competitively driven strategy (Fig.2). The close relationship between the success of national strategy at the macroeconomic level and the success of individual firm strategy at the microeconomic level is illustrated in Fig. 3.

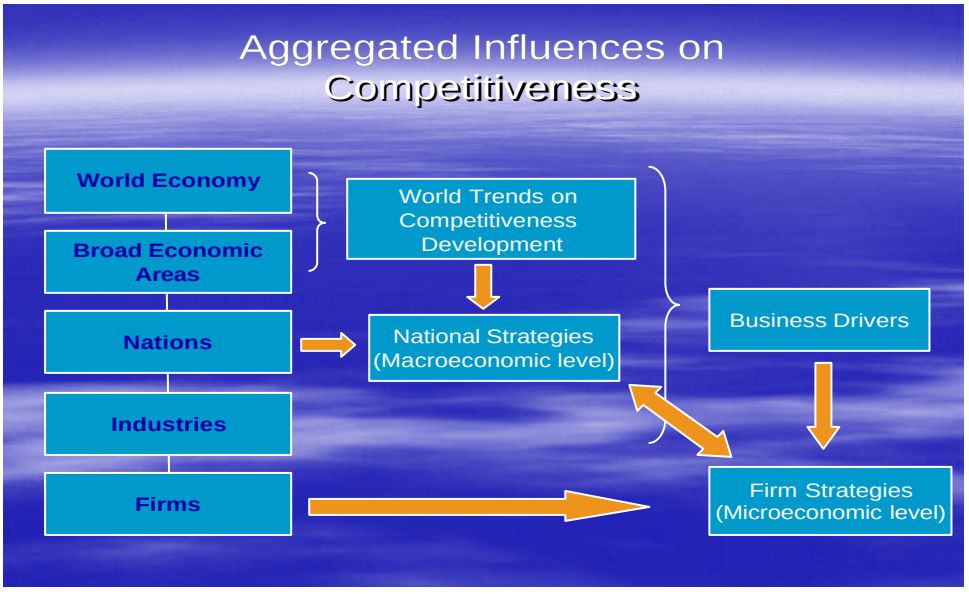

Fig.2: Aggregated Influences on Competitiveness (from National level to Firm level)

Fig. 3: The Interaction of Competitiveness Response between Government and Firms

In order to avoiding the sub optimal situation, it is advisable to define a kind of standard framework using for all participants related in competitiveness development, so that individual strategy can be aligned and adjusted in the most appropriate way to optimise the total system. For this reason, Porter's model is found to be a very simple, clear and effective framework for analysis and developing the competitiveness strategy for both at national level and firm level. Michael Porter explains that in developing the competitiveness strategy, there are four driving factors we have to consider, namely,

1. **Factor (supply) conditions;** it includes the consideration of fundamental factors as natural resource, geography; capital and factors which include knowledge and skill of people, and infrastructure.

2. **Context for firm strategy and rivalry**; it considers the conditions and rules of business and government (international and local) regulations/promotion, especially the ones that relate to productivity and competitive advantage improvement.

3. **Related and supporting industries**; it is the understanding the structure of the industry, knowing how each business entity works together with others in the industries including the ones from downstream, midstream, upstream, and supporting industries.

4. **Demand conditions**; particularly it is the understanding of the customers demand, and how to respond to satisfy the customer needs.

ICT for Competitiveness Development Strategies

In apply Porter's framework as a common basis for the ICT competitiveness development for both the national and firm levels, bared in mind that in this analysis we realize that there are plenty of nice things to do and there are so many detailed elements to be considered depending on the

situation of different economies, however we will try to capitalize the mega concepts or the latest world trends in the new economy and try to incorporate them into our development.

At the national level, the government must take an initiative to lead in the use of ICT and providing ICT infrastructure to build competitiveness to response to the new global competition. Following the four factors as stated in Porter's framework, the government must response by developing the ICT national strategy to build competitiveness in accord to the world trends in the new economy as follows (fig. 4):

Goal: To use ICT to build competitiveness of the nation.

1. **Factor (supply) conditions:** The government has to develop the long term ICT strategy to supply quality resources to industries and firms.
   World trend (National driver): Learning society
   National ICT response (National strategy): e-National Educational System to use ICT to improve the quality of education system, providing continuous and long life learning services to students and public.

2. **Context for firm strategy and rivalry:** The government has to develop the long term ICT strategy to provide competitive business environment to industries and firms.
   World trend (National driver): Knowledge based Economy
   National ICT response (National strategy): e-Government

3. **Related and supporting industries:** The government has to develop the long term ICT strategy to promote and upgrade the collaboration among related industries and firms.
   World trend (National driver): Cluster Development
   National ICT response (National strategy): e-Collaborative Platform (Virtual Cluster Development)

4. **Demand conditions:** The government has to develop the long term ICT strategy to understand and effectively response to the world demand and the needs of industries and firms.
   World trend (National driver): Globalisation
   National ICT response (National strategy): e-Commerce Promotion

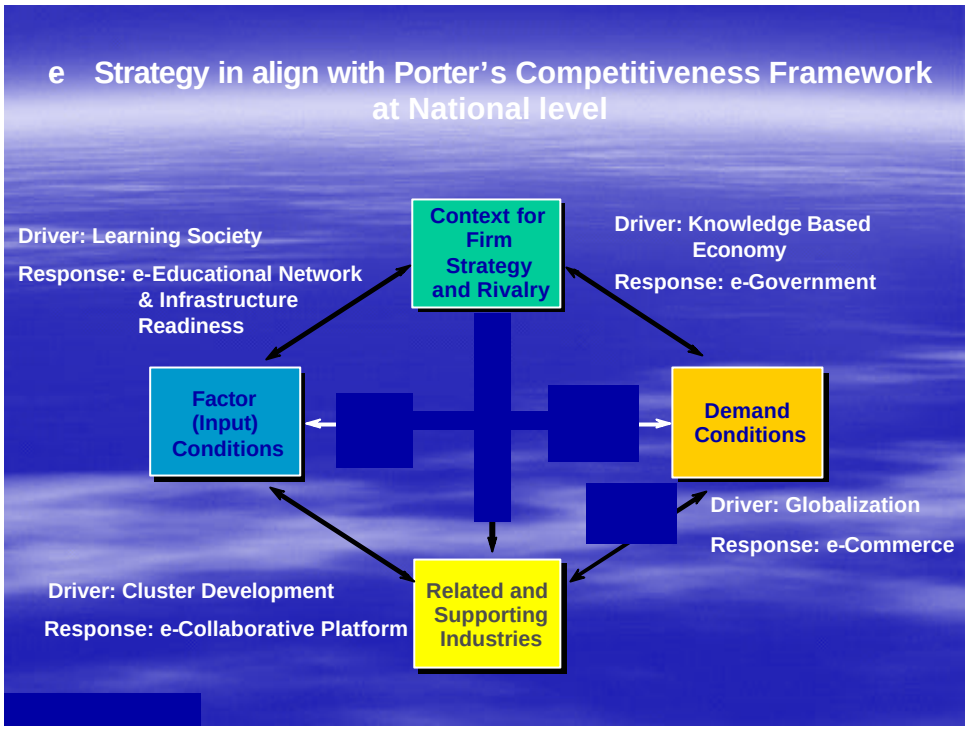

Fig. 4: ICT national strategy to build competitiveness

At the firm level, the industry must provide input to the government and firms must try to capitalize the government policy and resources to develop theirs own competencies, and to be self-productivity improvement. Following the four factors as stated in Porter's framework, the individual firm must response by developing the ICT strategy to build competitiveness at firm level in accord to the industry and business environment as follows (Fig. 5):

Goal: To use ICT to build competitiveness of firms.

1. **Factor (supply) conditions:** The firm has to develop short or intermediate term ICT strategy to provide sufficient infrastructure and technology to maintain and sustain effective basic ICT operation.
   Business driver: Sustainability
   Firm response (Firm ICT strategy): ICT Innovation and Capability Upgrading

2. **Context for firm strategy and rivalry:** The firm has to develop short or intermediate term ICT strategy to implement ICT applications for the firm productivity improvement.
   Business driver: Operational Excellence
   Firm response (Firm ICT strategy): ICT Implementation for Productivity Improvement (MRP, ERP, Benchmarking, TQM, Web-Services Solutions).

3. **Related and supporting industries:** The firm has to develop short or intermediate term ICT strategy to collaborate with other forms in the industry to drive for lower production cost, lower inventory, fast delivery, and improving quality.
   Business driver: Business Networking and Partnership
   Firm response (Firm ICT strategy): Supply/Value Chain Implementation (SCM/VCM)

4. **Demand conditions:** The firm has to develop short or intermediate term ICT strategy to understand customers demand and to be able to response quickly to the world market.
   Business driver: Customer Intimacy

Firm response (Firm ICT strategy): Customer Relationship Management (CRM), including telemarketing, customer call center, business information and customer analysis

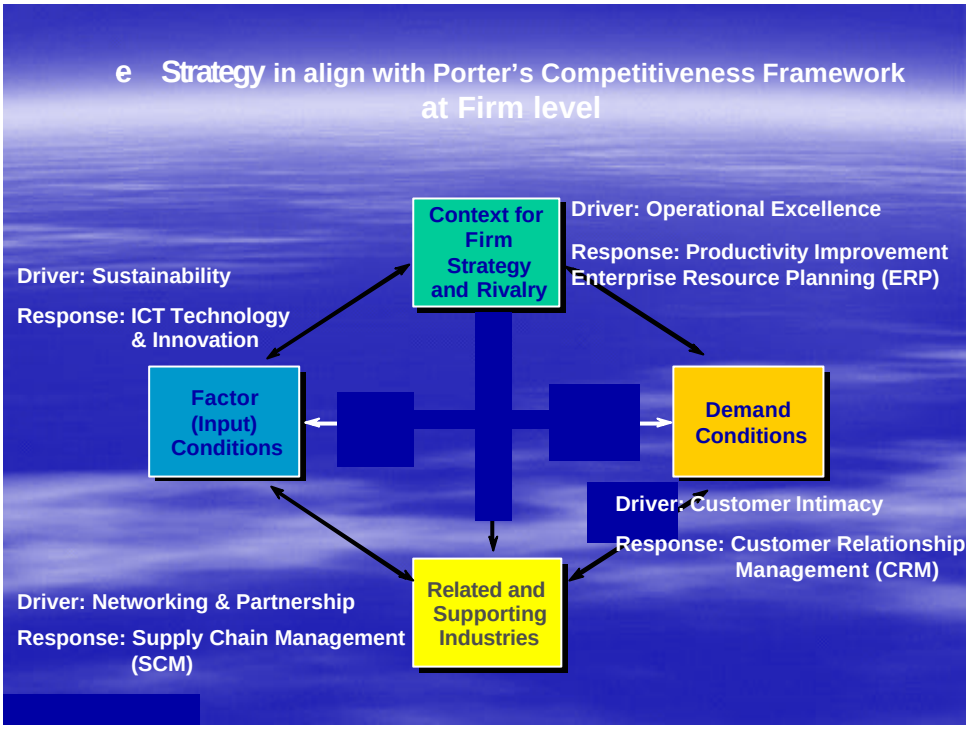

Fig. 5: ICT firm strategy to build competitiveness

In an effort to mapping the interrelationship between national and firm levels strategies together into a unified platform, fig. 6 presents the matrix of the alignment of collective competitiveness strategies. The graphical representation of the interaction and alignment of the collective competitiveness strategy integrating both national and firm levels is presented in fig. 7.

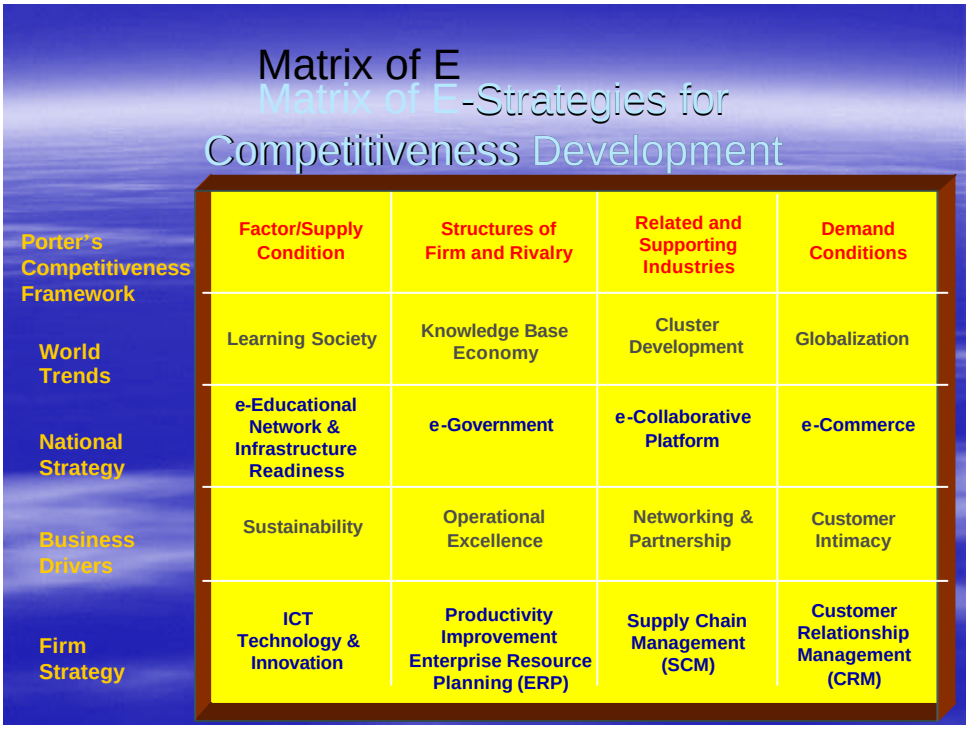

Fig. 6: The matrix of the alignment of collective competitiveness strategies integrating both national and firm levels.

Fig. 7: The graphical representation of the interaction and alignment of the collective competitiveness strategy

SWOT Analysis and ICT Implementation Action Plan for Competitiveness Development

In order to defining effective ICT national action plan, a summary of SWOT analysis and the related national action plans of a typical developing economy with respect to the developed national strategies (in accord to Porter's model) are presented here as follow:

- **National Strategy (Factor /Input Condition): e-National Educational System**
  SWOT Analysis:
  Strength: Good leader's vision and initiative in education reform.
  Weakness: Most of the people have limited knowledge and less assessment to computer services (Digital Divide).
  Opportunity: Use ICT as powerful tool to improve quality of learning system (learner centric model).
  Threat: No control of Internet materials, making it easy to access bad materials in Internet
  Action Plan:
  1. To provide sufficient computers and infrastructure to all schools, libraries, museums to be on line learning centers.
  2. To promote the use of computer & Internet, especially teaching to parents and teachers.
  3. To provide on line education and learning services.
  4. To provide solutions for teachers to develop local educational contents.
  5. To assure the quality of educational contents and to screen out the bad ones out.

- **National Strategy (Context for Firm Strategy and Rivalry): e-Government**
  SWOT Analysis:
  Strength: Government reform, new thinking to improve government services
  Weakness: Government bureaucratic, having limited budget
  Opportunity: Using ICT to improve the government services in term of productivity and efficiency.
  Threat: Competition among developed economies, having to play catch up on using of ICT to facilitate trading services.
  Action Plan:
  1. To simplify government bureaucratic processes and to streamline government services to be one stop service center.
  2. To integrate and link government data base and back office systems together.
  3. To provide e-government services on line to facilitate trades and public services.
  4. To train government officers on using computer and e-government service systems.

- **National Strategy (Related and Supporting Industries): e-Collaborative Platform & Virtual Cluster Development**
  SWOT Analysis:
  Strength: Significant number of local SME's located within the economy
  Weakness: Distrust and competition among local business community
  Opportunity: Aggregated competitiveness and productivity of SME through the concept of Cluster Development
  Threat: World competition is getting tighter, under the development of WTO free trade regulation.
  Action Plan:
  1. To promote or organize the partnership of related business entities into industry clusters
  2. To define common standards and practices.
  3. To promote collaborative business or supply chain activities among industry associations or federations.
  4. To develop virtual cluster platform, i.e., integration of business community, collaborative solutions, and e-services together.

- **National Strategy (Demand conditions): e-Commerce Promotion**
  SWOT Analysis:
  Strength: Varieties of products and services available to serve the increasing world demand
  Weakness: Local business people are lack of computer and ICT knowledge
  Opportunity: Potential e-commerce opportunity for new marketing channel to understand customer needs and demands.
  Threat: World competition, limited e-trade services and security
  Action Plan:
  1. To promote SME and local business people on using computer, Internet and e-commerce.
  2. To promote on line business and trading services such as e-payment, e-logistic, etc.
  3. To establish necessary laws and legal regulations for electronic transactions controls and protections.
  4. To promote portals or aggregations of local SME and business entities
  5. To provide global business information and services to local SME.

For the development of action plan for the firm, it will depend on the business environment and the condition of individual firm case by case of which is beyond the scope of this study. However some general guidelines and management methodology for the firm action plan development are suggested in the fig. 8.

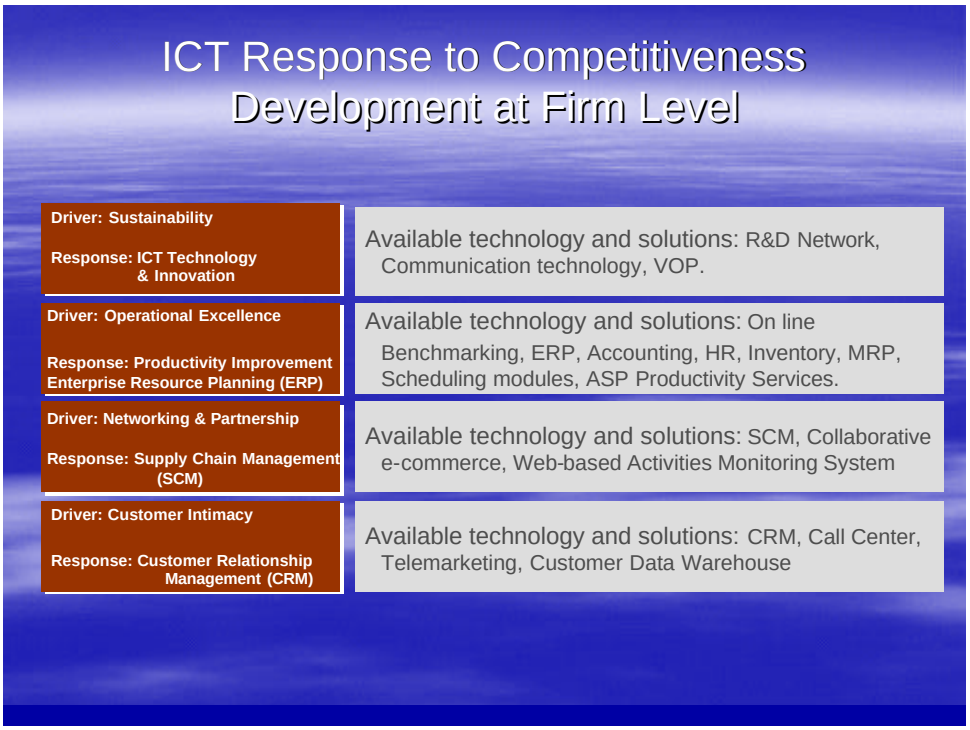

Fig. 8: ICT Action Plan Development guidelines at firm level

The analysis in this study is certainly not exhaustive, and it may not applicable to all developing and transition economies. However it covers a few of the more important issues of how the national strategy and be aligned to the firm strategy and vice versa by using a standard competitiveness driving platform, namely Porter's framework, and this study can be useful to provide guideline for other future detailed analysis and developments.