The Institute of Cost Accountants of India
54 National Cost Convention-2013

Ahmedabad, India January 18-19. 2013

Theme : India's Cost Competitiveness – Imperatives for CMAs

Presentation on:

COST COMPETITIVENESS – KEY TO ENTERPRISE SURVIVAL AND GROWTH: A SPECIAL FOCUS ON ROLE OF MANAGEMENT ACCOUNTANTS

Presentation by:

Prof. Dr. Swapan Kumar Bala FCMA

Chairman, Journal Committee, ICMAB &

Editor, *The Cost and Management* (Journal of ICMAB)

and

Professor, Department of Accounting & Information Systems

University of Dhaka, Dhaka, Bangladesh

Issues covered:

1. Introduction
2. Conceptual Issues
3. Indicators of Cost Competiveness and Enterprise Survival and Growth
4. Impact of Volatility and Competition on the Businesses
5. Need for Strategies for Bringing about Operational Efficiencies and Dynamism
6. Role of CMAs in Making a Business Cost-Competitive
7. Concluding Remarks

Introduction:

- Pace of globalization becoming faster and the flow of cross-border investments also increases over the years.
- **UNCTAD's *World Investment Report 2012:***
  - ➢ Global FDI inflows rose in '11 by 16% compared with '10
  - ➢ Global inward FDI stock rose by 3%, reaching $20.4 trillion.
  - ➢ FDI flows to developing and transition economies saw a rise of 12%, reaching a record level of $777 billion.
  - ➢ FDI flows to developed countries also rose–by 21%.

- Within the continued **uncertainties** over the global economy, these **increases in flow and stock of FDI** have created also significant **challenge** in terms of **international competitiveness**.

Conceptual Issues: (1/3)

Cost Competitiveness:

- **Cost …** a resource sacrificed or forgone to achieve a specific objective.
- **Competitiveness …** situation in which people or organizations compete against each other, where "to compete" means one's attempt to be more successful or better than another one who/which is also trying to do the same.
- The WEF, for its GCI, has defined "***competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country***".
- Thus, the **competitiveness of a country** **=** its **'level of productivity'**.
- The level of productivity ⇒ sets the level of an economy's prosperity and determines an economy's ROI ⇒ fundamental drivers of growth rates
- In other words**, a more competitive economy is one that is likely to sustain growth**.
- However, a country may be at a **competitive disadvantage** to another country despite a higher level of productivity (Ray, 2012).

Conceptual Issues: (2/3)

Cost Competitiveness: *cont'd*

- 3 meanings of competitiveness (Artto, 1987):
  - (1) *Cost-competitiveness*,
  - (2) *Price-competitiveness*; and
  - (3) *Non-price-competitiveness*.

- Of the **3 major influences on pricing** decisions (***customers***, ***competitors***, and ***costs***), last two are related to ***cost competitiveness*** and hence it has obvious relationship with pricing – of inputs or outputs or both.

- Thus, **cost competitiveness** means a situation of a firm which has **unit cost (average cost)** **lower than** **that of its competitors** on a **sustainable basis**.

Conceptual Issues: (3/3)

<u>Enterprise Survival and Growth</u>:

- **Enterprise survival** is the continued operation struggling against difficulties which may come from a higher degree of competition from new entrant or existing established firms.
- On the other hand, **enterprise growth** is the increase in the enterprise's human and physical capital as well as the expanded operations.
- For a new entrant firm, **<u>survival</u>** might be the primary issue and with the efflux of time when survival threat is over, then **<u>growth</u>** might come with the strong footing of the enterprise from experiential learning.
- If **<u>growth</u>** can be ensured, an enterprise must **<u>survive</u>** also.

Indicators of Cost Competiveness and Enterprise Survival and Growth : (1/3)

Indicators of Cost Competiveness:

- Cost competitiveness has traditionally been measured by **export prices** or by **'unit labour cost' (ULC)**.
- **ULC** is measured as **labor compensation per person employed relative to output per employed person**.

- Ray (2012) has measured cost competitiveness by developing a **Cost-Competitiveness Index (CCI)** which consists of various changes:

$$CCI = [CEC].[SEC].[IPC].[TC].[SBTC]$$

where, **CEC** = Cost Efficiency Change = *[TEC].[AEC]*
TEC = Technical Efficiency Change
AEC = Allocative Efficiency Change
SEC = Scale Efficiency Change
IPC = Input Price Change
TC = Technical Change
SBTC = Scale Bias of Technical Change.

Indicators of Cost Competiveness and Enterprise Survival and Growth : (1/3)

Indicators of Cost Competiveness: .. *cont'd*

Artto (1987) has presented a new concept of the **"unit total cost" (UTC)**, referring to **"relative total cost" (RTC)**, which can be applied in the measurement of the **<u>competitiveness of single industries</u>** by using information from the firm's financial statement information. His formulas for computing RTC are as follows:

$UTC = C/Q,$ $\qquad\qquad RTC = C/S,$

$UTC = p \times RTC \quad$ or $\quad RTC = {}^{1}/_{p} \times UTC,$

where, C = total cost of goods sold; S = net sales; Q= units sold; p = unit price.

- RTC is claimed to represent the concept of "total competitiveness", because it has included the effects of all cost-, price- and non-price factors.
- If information from financial statements is on cash flow accounting basis and the market values, then the results will be comparable and reliable.

Indicators of Cost Competiveness and Enterprise Survival and Growth : (1/3)

Indicators of Enterprise Survival and Growth:

Survival rate is often measured as the share of base year entrants surviving one decade and the ***growth rate*** is measured as employment in the last year divided by employment in base year.

However, in financial statement analysis, the **sustainable equity growth rate**, or simply **sustainable equity growth**, has been used as the indicator of the **‘enterprise growth’**, because it recognizes that internal growth for a company depends on *both* earnings retention and the return earned on the earnings retained. Then,

Sustainable equity growth rate = ROCE × (1 – Payout rate).

Impact of Volatility and Competition on the Businesses :

"The best of all monopoly profits is a quiet life" (1935).
--- British economist 1972 Economics Nobel Prize winner Sir John Richard Hicks).

Determinants of Competition

Growing tougher competitive conditions faced by firms in many industries are usually caused by:

- increased deregulation,
- globalization, and
- the speed of technological change.

Impact of Volatility and Competition on the Businesses :

Volatility and Competition

- Volatility is often synonymously used with “risk” and it imposes costs on risk-averse firms. Consequently volatility may decrease the cost competitiveness of a firm.
- But under the standard view, volatility is a function of shocks to the economy’s discount factor and to the company’s underlying cash flows.

- As evidenced by Irvine and Pontiff (2009):
  - Return on assets is negatively related to idiosyncratic volatility in the cross-section.
  - Since deregulation is associated with increased competition, deregulation is also associated with significant increases in idiosyncratic volatility.
  - Their research findings show that the upward trend in idiosyncratic volatility is related to an increasingly competitive environment in which firms have less market power. When the success of one firm in an industry comes at the expense of another firm in that industry, competition contributes to negative covariance in firm performance.
  - In volatility and economic competitiveness, financial innovation allows small, risky firms to raise capital, thus inducing greater economy-wide competition. Hence, financial market innovation is of high importance with regard to economic advancement.

Impact of Volatility and Competition on the Businesses :

Volatility and Competition

- However, the linkage between exchange rate volatility and the export trade is not systematically proved to be negative. Rather, in theory, exchange-rate volatility may either deter trade or stimulate it.
- Some researchers have mentioned that within exchange rate volatility, export trade can be viewed as an “option” held by the firms and hence, its value can increase with increase in volatility.
- Other researchers have demonstrated a model that it is feasible that any given firm will on average enter sooner and exit later when exchange rate volatility rises, so that the number of trading firms will on average increase. Consequently the model suggests trade benefits from exchange rate volatility.

Impact of Volatility and Competition on the Businesses :

Volatility and Competition

Gaspar and Massa (2006) show two ways in which competition affects volatility:

(1) **Natural hedge effect:** Market power works as a natural hedge that smoothes out cash flow fluctuations resulting from idiosyncratic cost shocks. Competitive positioning can influence the impact of company-specific shocks. A firm with monopoly power is able to pass on a bigger proportion of any idiosyncratic cost shocks to its consumers. In contrast, a firm acting in a highly competitive industry can be driven out of business entirely if costs get much out of line with those of its competitors.

(2) **Uncertainty effect:** The ability to exercise market power and avoid competition decreases uncertainty about the firm's future performance. Investors learn about a firm's average profitability over time. Idiosyncratic volatility increases with uncertainty about a firm's average profitability because (firm-specific) learning uncertainty is only weakly correlated with the (economy-wide) stochastic discount factor. As a result, all learning uncertainty is transmitted to returns in the form of idiosyncratic shocks. Thus, competition increases uncertainty about the firm's average profitability. Higher idiosyncratic volatility* by firms is therefore observed in competitive industries even when the volatility of their underlying profits is kept constant.

___

*Idiosyncratic volatility is the sum of squared residuals with respect to the capital asset pricing model.

Impact of Volatility and Competition on the Businesses :

Volatility and Competition

In strategic management accounting research findings (e.g., Jacobides, Winter and Kassberger, 2012), we see:

- Idiosyncratic resources can drive sustained profitability and persistent heterogeneity under competitive conditions. Generic inputs purchased in the market become idiosyncratic resources as the result of firms' investments in customization.

- An indicative list of dynamic factors that shape industry evolution and profit distribution include:
  - capability heterogeneity;
  - resource customization cost; and
  - ease of expansion.

Impact of Volatility and Competition on the Businesses :

Volatility and Competition

- Firms compete in the market for generic inputs, for the final product, facing price-sensitive demand, and behave as price takers. Their distinctive competitive approaches are manifested in varying degrees of capability.
- Firms make idiosyncratic investments to convert generic inputs into the resources needed for production.
- Customization is what keeps a firm from expanding; and both the cost, and its discount rate of the future (reflecting its opportunity cost of funds) will determine the extent to which it is deterred from growing and potentially squeezing competing firms out of the market.
- Thus, the dynamic calculus of customization and assessment of the returns to capacity expansion will determine the profit levels that can be sustained in equilibrium under a competitive structure.
- If a firm finds that the expansion will be profitable, that can easily expand to find a sustainable competitive position in the market.

Need for Strategies for Bringing about Operational Efficiencies and Dynamism :

Dynamism is often represented by:

- Extent to which product and service technologies changed in an industry over a number of years;
- Extent to which the level of demand for different products changed in the industry over a number of years;
- Extent to which the profitability of different products changed in the industry over a number of years (Andersen, 2004).

Need for Strategies for Bringing about Operational Efficiencies and Dynamism :

Generic Strategies and Their Associated Tactics (Akan, Allen, Helms, and Spralls III, 2006)

Differentiation strategy	
Extensive training of marketing personnel	Building a positive relationship within the industry for technological leadership
Developing a broad range of new products or services	Forecasting existing market growth
Refining existing products or services	Forecasting new market growth
Developing brand identification	Fostering innovation and creativity*
Innovation in marketing technology and methods*	Building high market share*
Utilizing advertising	

Need for Strategies for Bringing about Operational Efficiencies and Dynamism :

Generic Strategies and Their Associated Tactics (Akan, Allen, Helms, and Spralls III, 2006)

Cost leadership strategy	
Vigorous pursuit of cost reductions	Minimizing distribution costs*
Tight control of overhead costs	
Focus/cost strategy	**Focus/differentiation strategy**
Providing outstanding customer service*	Providing specialty products and services*
Improving operational efficiency	Producing products or services for high price market segments*
Controlling the quality of products or services*	Dropping unprofitable customers
Extensive training of front-line personnel*	Targeting a specific market
Intensive supervision of front-line personnel	

* Tactics that were significantly related to higher organizational performance

Improving operational efficiency:

Niche low-cost firms may improve their operational efficiency by flexible manufacturing systems (FMS), information networks, or total quality management (TQM) systems. These systems can improve work flow, thus saving time and costs.

Role of CMAs in Making a Business Cost-Competitive :

- Various studies suggest that companies facing intensely competitive market environments tend to employ relatively more sophisticated management accounting systems.
- Competition is commonly identified by researchers as the most important external factor for stimulating managers to consider redesigning their costing systems.
- Cooper (1988) has argued that organizations facing fierce competition should implement ABC.
- Even companies facing intensive competition, when going for product-differentiation strategies with a greater number of product and service lines, require sophisticated costing systems to measure accurately the costs of increased variety and customization.
- They will then be able to ascertain whether the strategy adopted results in the revenues generated exceeding the higher costs associated with the increase in variety and customization.

Role of CMAs in Making a Business Cost-Competitive :

- Companies facing relatively intensive market conditions are also likely to have products and services with low profit margins due to pressure to match or under-cut prices charged by competing firms.
- Thus, there is a greater need for accurate cost systems since there is a danger that inaccurate systems may significantly overcost or undercost products/services to such an extent that they result in incorrect decisions.
- For example, undercosting may lead to incorrectly continuing with low margin products which are really loss making.
- Conversely, overcosting may mistakenly result in the discontinuation of reported loss making products or services, which are really generating low profit margins.
- Thus, organizations facing intense competition have a greater need for accurate cost information.

Role of CMAs in Making a Business Cost-Competitive :

Competitor-Focused Accounting (CFA): *vide* Guilding (1999)
Competitor analysis is fundamental to the pursuit of competitive advantage.
Companies should maintain "… an organized mechanism–some sort of competitor intelligence system–to insure that the process is efficient"' (Porter, 1980).

Five CFA practices:
(1) competitor cost assessment;
(2) competitive position monitoring;
(3) competitor appraisal based on published financial statements;
(4) strategic costing;
(5) strategic pricing.

Role of CMAs in Making a Business Cost-Competitive :

Competitor-Focused Accounting (CFA): *vide* Guilding (1999)

Competitor cost assessment involves, inter alia, appraising competitors' manufacturing facilities, economies of scale, governmental relationships, and technology-product design, and if possible, using "indirect sources"' of competitor information which include: physical observation, mutual suppliers, mutual customers, and employees (particularly ex-employees of competitors). Competitor cost assessment is defined as the provision of a regularly updated estimate of a competitor's unit cost.

Competitive position monitoring, a more holistic mode of CFA than competitor cost assessment, is defined as the analysis of competitor positions within the industry by assessing and monitoring trends in competitor sales, market share, volume, unit costs, and return on sales. This information can provide a basis for the assessment of a competitor's strategy. In the USA, competitive position monitoring has been found to be the most widely-used CFA practice and is also perceived to be of the greatest help.

Role of CMAs in Making a Business Cost-Competitive :

Competitor-Focused Accounting (CFA): *vide* Guilding (1999)
Competitor appraisal based on published financial statements is defined study as the numerical analysis of a competitor's published statements as part of an assessment of a competitor's key sources of competitive advantage.

Strategic costing is defined as the use of cost data based on strategic and marketing information to develop and identify superior strategies that will produce a sustainable competitive advantage.

Strategic pricing is defined as the analysis of strategic factors in the pricing decision process. These factors may include: competitor price reaction, price elasticity, market growth, economies of scale, and experience.

Role of CMAs in Making a Business Cost-Competitive :

How to Be Cost Competitive

Using Porter's approach Robin Cooper and Regine Slagmulder (1997) have stated following generic strategies for cost-competitiveness:

Strategies to be Cost-Competitive

Firm Type	Strategies for Competition		Focus on	Action at competition
	Broad	Specific		
Mass producers	Competition avoidance strategies	Cost leadership	Developing a sustainable cost advantage	Dropping price
		Product differen-tiation	Developing a sustainable advantage in product development	Isolating a section of the main market to make the competitor pointless
Lean producers	Competition confrontation strategies	Cost manag-ement	Developing a product-related competitive advantage	Three ways: • Cost management of *future* products • Cost management of *existing* products • Cost reduction of products in at least one other way

Role of CMAs in Making a Business Cost-Competitive :

Competition Avoidance Strategies

Cost leadership strategy: The cost leader avoids competition by saying, “Don’t compete with me. If you do, I’ll drop prices even lower and render you unprofitable.”

Product differentiation strategy: The product differentiators isolate a section of the main market and state, “This is my territory. I’m so good at what I do that attempting to compete with me is pointless.”

Competition Confrontation Strategies

These are followed by lean entities as a continuing agenda, assuming that sustainable, product-related competitive advantages are unlikely to be developed. Lean producers can “react fast enough to make product-related competitive advantages too fleeting to be considered sustainable” and there is not enough time to educate the customers to the positive attributes of the new product before other enterprises have “me-too versions”.

Role of CMAs in Making a Business Cost-Competitive :

Cooper and Slagmulder (1997) have then introduced the concept of the *survival triplet* that consists of three dimensions that define a product:

- *cost/price*,
- *quality*, and
- *functionality*.

A product has a chance of being successful if it has values along each of these three dimensions. To identify a product's *survival zone*, the *survival range* (difference between minimum and maximum values that one characteristic can have for a product to be successful) for each of the characteristics in the survival triplet must be determined. Then survival zone is ascertained as a volume created by connecting the three minimum values and three maximum values.

Role of CMAs in Making a Business Cost-Competitive :

Survival Triplet, Survival Zone and Survival Range under Various Strategies

Strategies	Survival Zone	Survival Range	Dimensions of the Survival Triplet		
			Price	Quality	Functionality
Cost leadership[a]	Large	Significant for at least two of three characteristics	Low	Minimum level	Low
Product differentiation[b]	Large	Significant for at least two of three characteristics	Higher	Differe-ntiated	Higher
Competition confrontation[c]	Very narrow	Insignificant for all three characteristics	Low	High	High

[a] Firms competing on the price characteristic are vying for the cost leadership position.

[b] Firms competing on functionality and quality characteristics have adopted product differentiation strategies.

[c] Firms adopt a confrontation strategy, when multiple firms compete head on for the same customers by developing equivalent products and the firms are evenly matched on all dimensions of *survival triplet*.

Role of CMAs in Making a Business Cost-Competitive :

Key Characteristics of Five Important Cost Management Techniques

Cost management technique	Phase in product life cycle	Objective	Focus	Appli-cation
Target costing	Product design	Cost reduction	Product design	Systematic
Product-specific Kaizen costing	Manufa-cturing	Cost reduction	Product design	Ad hoc
General Kaizen costing	Manufa-cturing	Cost reduction	Production process	Systematic
Functional group management	Manufa-cturing	Cost reduction	Production process	Systematic
Standard costing	Manufa-cturing	Cost containment	Production process	Systematic

Role of CMAs in Making a Business Cost-Competitive :

Cost Management Systems:
followed by lean producers under the competition confrontation strategy

Cost management of future products:
Japanese firms have developed three specific cost management techniques to manage the costs of future products: *target costing*, *value engineering*, and *interorganizational cost management system*.

Cost management of existing products:
To manage the costs of existing products, usually three cost management techniques are used: *kaizen costing*, *product costing*, and *operational control*.

Role of CMAs in Making a Business Cost-Competitive :

Cost Management Systems:
followed by lean producers under the competition confrontation strategy

Cost reduction of products in at least one other way:
An entity can lower the costs of its products in at least one other way: by harnessing the entrepreneurial spirit of its workforce. This method focuses on the workforce, not the products or production processes. Two techniques are used to accomplish this objective. The first creates *pseudo micro profit centers* from *cost centers* and the second converts the firm into multiple *real micro profit centers.*

Role of CMAs in Making a Business Cost-Competitive :

Cassandra: *The World in 2013*

Global trends for 2013: A top ten for business leaders

1. **Social everything: New generations and their digital world stepping forward**
2. **Redefining value: The consumer is winning the fight to own the new consumer**
3. **Distributed everything: Mobility in production and consumption**
4. **The next "industrial" revolution: Robots and smart machines reshaping work**
5. **The new space race: Pushing the frontiers of technology once again?**
6. **Geopolitical wars: The fight to control the future**
7. **Resource wars escalating: From a world of abundance to shortage**
8. **Business stepping up: From profit to purpose**
9. **Information is power: The security challenge**
10. **Who needs banks anyway? Reshaping the financial system**

Like any big shift, the dispersion of economic power presents challenges and opportunities.

All businesses should be ready to take advantage of these 10 trends.

End of the Presentation

Q&A