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Are Multinational Corporations Problem-Solvers or Problem-Makers in Developing Countries? Focus on Technology Gap and Arbitrage

M. R. Kumara Swamy
Director, Om Sai Ram Centre for Financial Management Research
Mumbai, India
jfmaosr@gmail.com

ABSTRACT

Multinational Corporations (MNCs) through their subsidiaries (in developing countries) with selfish interests like gamblers begin the business game with a small stake (initial investment) and continually plough back their winnings (taking advantage of good political risks) into the game of gambling making their parent companies grow richer through, according to the author's research findings, abnormal profit earnings between 400 per cent and 600 per cent. With stringent controls exercised by developing countries over MNCs in recent years and funding gambling a losing game, developing countries have put all hands on deck to move from a state of overdependence on MNCs to techno-economic self-reliance. This, the author has analysed with the help of uniquely-presented diagrams and arbitrage technique.

JEL Classifications: B41, D42, F23, G31, M41, O32

Keywords: Multinational Corporations; Gambling; Self-reliance; Arbitrage

I. INTRODUCTION

The emergence of the Organization of Petroleum Exporting Countries (O.P.E.C.), with its oil weapon, especially after the Tehran Agreement of 1973, as a strong spokesman of the developing countries and asserting their control over operating MNCs led the world organizations like U.N., O.E. C.D., and MNCs to formulate code of conduct for multinational corporations (MNCs) who are *problem-makers*, *heavy risk-bearers*, and who, as a compensation for bearing perceived risks, engage in tricky and speculative business dealings in order to earn abnormal profits through the techniques of transfer pricing, overinvoicing, subcontracting, dumping of sophisticated technology without supporting local technical manpower, etc. leading to temporary upswing in the stock market inducing investors to part with M_1 (liquid cash) to buy MNC-induced stocks (M_2) and creating temporary boom with every possibility of a surging stagflation.

What is a multinational corporation (MNC)? In simple language a multinational corporation is a company that has registered in different robes in more than one country. *It may as well be asked why companies which may have been doing so well in their countries take the trouble to go beyond their territorial boundaries to invest in other countries?* The fact is that these companies have not only over-grown in terms of capacity but have over-capitalized such that their earnings are not large enough to yield a fair return on the amount of capital employed. But where the companies concerned are making abnormal profits, the governments normally step in with legislations that either reduce their activities or drastically tax their abnormal profits. In order to avoid the above problems, such companies look for alternative areas where they can invest their excess funds without restrictions. With their yawning desire for industrialization, the developing countries very readily welcome them - often to their own detriment. When the MNCs come in their industrialization guise, they normally come with men, materials, capital and technology they would need. Where they employ the indigenes of the host country, it is either as laborers' or they are given such positions that will not expose them to the business tricks.

II. MNCs EARN ABNORMAL PROFITS (400% to 600%)

Research studies have confirmed that multinational corporations (MNCs) parented in developed industrialized countries, through their subsidiaries (in developing countries), with selfish interests like gamblers, begin the game with a small stake (initial investment) and continually plough back their winnings (taking advantage of good political risks) into the game of gambling making the parent MNCs grow richer through abnormal profit earnings of anywhere between 400 per cent and 600 per cent on one hand; and, on the other hand, the developing countries, acting as gambling dens with MNC-supported management consultancy-cum-financed expensive loans (like Euro-dollar), tied project aid, etc. and through transfer of sophisticated and inappropriate technology from the industrialized countries - all in the name of so-called economic development - would continue to remain in a state of volatile-cum-inorganic development path causing techno-economic backwardness from a long-run point of view.

With stringent controls exercised over MNCs in recent years, developing countries have put all hands on deck to move from a state of overdependence on MNCs to techno-economic self-reliance and the MNCs, finding gambling a losing game in developing countries, have engaged in employing techno-management techniques (like transfer of

highly priced-cum-most sophisticated and appropriate technology on one hand) and, forcing MNC-controlled developing countries to maintain very high and unrealistic-not functionally related to economic development-exchange values for their currencies which, in the words of Swamy (2003), proves a doom to the developing countries and a boom to the MNCs (for facilitating continual abnormal profit repatriation) to strength their monopoly power as explained below:

> *"Hi-tech manufacture*/production -, may lead to *negative cash flows* -, induces risk capital and prompts MNCs to -, *underutilize productive capacity* and -, engage in arbitrage and earn abnormal profits of anywhere between 400 per cent and 600 per cent profits -, *proves a boom to MNCs-parented in developed countries and a doom to MNC-controlled developing countries* -, leading to development tension via *technological backwardness* (Swamy, 2003)."

MNCs as problem solvers, by taking advantage of good political risks in developing countries, induce foreign investment by developed countries like the U.S.A. with restrictions imposed on the developing countries regarding the use of patents, trade-related measures, etc. and compel the developing countries to dance to the tune set by the industrialized countries.

III. SUPER 301/PROVISIONS: U.S.A.

According to the U.S. Trade Representative, Americans who engage in international trade are very concerned about the harm to U.S. trading interests that results from the lack of adequate and effective protection of intellectual property rights in many foreign markets. U.S. businesses are losing money but more importantly, the U.S. economy is losing the competitive edge gained from research and development, innovation and creativity. As a nation, the U.S. simply cannot afford it (USTR, 1989; USIS, 1989; Cohen, 1989).

The share of U.S. exports, made up of articles that rely heavily on intellectual property protection (chemicals, pharmaceuticals, computers, software, movies, sound recordings, books, scientific equipment, etc.,) has risen astronomically in the postwar period. For example, U.S. companies experienced worldwide losses estimated to $43,000 million to $61,000 million in 1986 due to inadequate and ineffective intellectual property protection. U.S. trade policy objectives evolved in the first half of the 1980s to expand their negotiating mandate on intellectual property.

An entirely new provision – *a watered-down version of the Gephardt Amendment, Super 301* – is a direct result of common belief that U.S. business is not getting a fair deal in many parts of the world : it is not a punitive device, but is a leverage to open markets : *Super 301* provides general retaliatory authority in cases where foreign practices burden or discriminate against U.S. commerce and the 1993 *trade policy of the U.S. designates Super 301 as an important tool for opening foreign markets*.

IV. HOW DO MNCS OPERATIONS IN DEVELOPING COUNTRIES CREATE FINANCIAL WASTE? CASE STUDY

Swamy's (1978) research findings based on his incisive observation of the economic activities of MNCs in developing countries for several years have revealed that, every

multinational company at one source, say A aims at making about 200 per cent profit, another 200 per cent at, another source, say as its subsidiary, and another 200 per cent, at, yet another source, C as its sub-subsidiary on capital employed. (Swamy, 1978; Okereke, 1982).

If one takes stock of the number of MNCs operating in Nigeria, as an illustration, one will shudder at the amount of money that leaves the country every year in the name of profits. The repatriation of these profits normally puts the host country into perennial balance of payments difficulties. If we take *Volkswagen of Nigeria as a practical example* of a operating MNC in Nigeria (based on events in the mid-1980s), we will discover that Nigeria does not manufacture Volkswagen cars but only assemble parts imported from Brazil (South America). A little enquiry further will reveal that the Brazilian Volkswagen Corporation is an investment of the parent company based in Germany, viz., Volkswagenwerk (Europe). It is still worthy to note that one of the major distributors of Volkswagen cars in Nigeria is J. Allen - - a British firm - - which does not manufacture cars but only serve as a distributor/sales representative. A look at the world map reveals that Nigeria is nearer to Germany than to the U. K., and Brazil. What then is the rationale behind Nigeria going to Germany via Brazil and with a stopover in U.K. - - all in the name of economic development through the gimmick foreign investment? It is anybody's guess!! If Nigeria wants to enter into trade and investment relations with another country for the distribution of Volkswagen cars, it would not only be more economical in distance, but it would be financially prudent to go straight to the home land of Volkswagen, i.e., Germany.

If we then apply Swamy's (1978) theorem to this situation, we will derive the following financial data for the parent company's operations through its network of subsidiaries and sub- subsidiaries in Nigeria. The calculations show that the cost of a Volkswagen car of N 300 (at 1978 prices) plus profit of N 3,096 is forced down the pocket of unwary Nigerian consumer. The 600 per cent profit on foreign investment is siphoned out of the country every year through so many unethical avenues without any person raising much of an eyebrow. It should as well be noted that the 600 per cent capital profit does not include the escalated cost of imported machinery and the exorbitant salary and perquisites of their personnel.

Thus, the repatriation of 600 per cent profit on foreign investment which leaves Nigeria year after year to the U.K., Brazil and Germany is wasteful and should by all means be checked. Time is over-due for Nigerians to eliminate the chain of foreign middlemen in her path towards economic development processes. At this point the words of Adam Smith are pertinent to quote:

> "The quantity and value of the land which any man possesses can never be a secret, and can always be ascertained with great exactness. But the whole amount of the capital stock which he possesses is almost always a secret, and can scarce ever be ascertained with tolerable exactness. It is liable, besides, to almost continual variations. The proprietor of stock is properly a citizen of the world, and is not necessarily attached to any particular country. He would be apt to abandon the country in which he was exposed to a vexatious inquisition, in order to be assessed to a burdensome tax, and would remove his stock to some other country where he could either carry on his business, or enjoy his fortune more at his ease. But removing his

stock, he would put an end to all the industry which it had maintained in the country which he left (Adam Smith, 1937)."

Table 1
Financial analysis of an automobile multinational corporation in Nigeria (at 1978 prices)

Country	Profit on Capital Investment (in %)
Germany (parent company)	200
Brazil (subsidiary: multinational corporation)	200
U.K. (J. Allen as salesman – sub-subsidiary):	
Multinational corporation registered in Nigeria	200
Total abnormal profits earned by a MNC operating in Nigeria	600

Source: Swamy (1978) and Okereke (1982).

V. TRANSFER OF TECHNOLOGY

There is a considerable ambiguity surrounding the use of the term *technology* which assumes many forms *hardware,* embodied in machinery and equipment *software,* such as blueprints or operating manuals, and *services* in a variety of areas (for example, product design or quality control). Developing countries are also concerned about the appropriateness of technologies transferred through foreign direct investment. At issue is the widely-held notion that MNCs tend to transplant capital-intensive technologies inappropriate to host country's factor endowments. There are a number of factors which cause severe imperfections in technology markets. The number of suppliers is often limited. Technology is not a homogenous product - - various elements of technology are put together by supplying firms in a way that no firm's package is identical with that of any other firm. There is a large information gap between suppliers and buyers; the latter have practically no information regarding the alternative of developing the technology independently, nor of direct costs to the seller (UNCTC, 1990).

In cases like the computers industry, there is much greater reluctance to make technology available outside of foreign direct investment in majority-owned affiliates. This is attributable to the strong technological lead of the dominant firms, and the perceived costs of losing control over extremely valuable production technology. *U.S. data show that about 90 per cent of the R&D expenditures of MNCs based in the U.S.A. take place with the U.S.A. itself,* slightly 9 per cent within other developed countries and under one per cent within the developing countries. The share of affiliates in developing countries in total R&D expenditures is much less than their share in total assets or sales. Thus, *technology is not shared but is monopolized (retained) in advanced countries only*.

Such sophisticated technologies are transferred to developing countries in the name of technological (industrial) development of those developing countries while, at the same time, being fully aware that such sophisticated technologies or high-level technologies are at the expensive of techno-economic self-reliance of those developing countries as aptly pointed out by an experienced Nigerian engineer-entrepreneur. If, in hypothetical terms, the actual cost of manufacturing a Volkswagen car is N 300 (at 1978 prices), the f.o.b. cost to the customer in Nigeria will be made up as follow.

Table 2
Escalated cost of a motor car to the Nigerian consumer (at 1978 prices)

Country	Cost of Car (f.o.b.) (N)	Abnormal Profits according to the Swamy's (1978) Theorem	
		Total Amount	Number Retained in the Country Concerned
West Germany	300	600	120
Brazil	480	960	192
U.K. (J. Allen in Nigeria)	768	1,536	307
Total abnormal profits per car		3,096	
Plus original cost of manufacture		300	
Selling price in Nigeria		3,396	

Note: Going by the principle of deposit multiplier, it is assumed that 20 per cent of the abnormal profits earned from each investment is retained in the country of operation and the remaining 80 per cent is reinvested in subsidiaries, sub-subsidiaries, etc.

Since most of the technology in this country is still imported you can see immediately that *Nigeria's economy can aptly be described as an appendage to the economy of other countries like Britain, the U.S., Japan, Germany, Taiwan and lately India,* to name a few. May I pause to add that there is nothing entirely surprising that at this level of our development there must be some appendage but what is definitely worrying is lack of a concerted effort and leadership to thin down this appendage. The disruption of the production processes in any of these countries affects us directly in varying degrees. The reverse is noticeably not the case (Egwuatu, 1989).

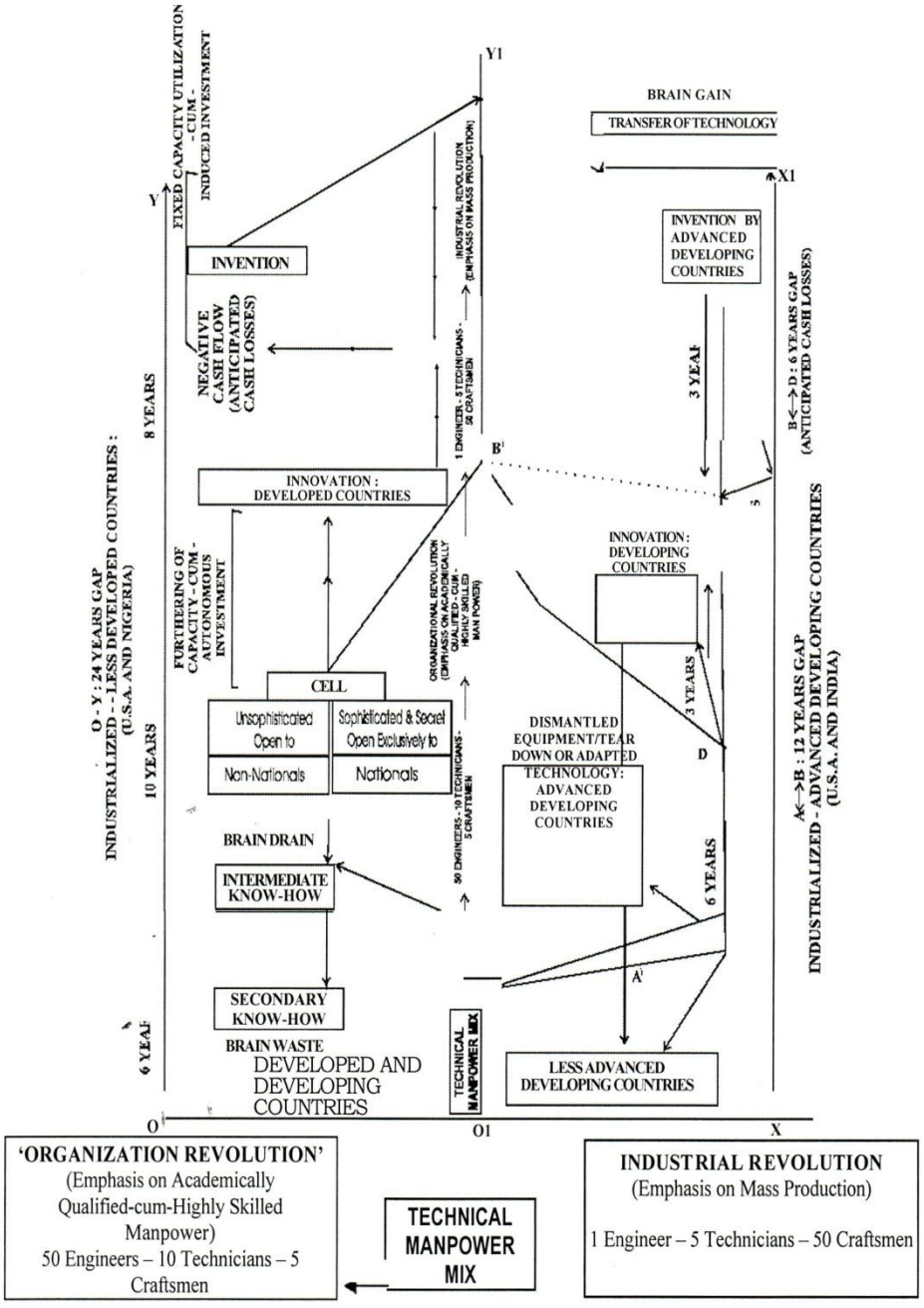
According to a study by a noted development finance expert:

> "Many times one finds that consultants retained for the design of a project - - and especially those from or trained in the western world - - have an inbuilt bias towards the establishment of capital- intensive facilities. This may be so because they hope that eventually they will be involved in the actual construction of the plant; often, it is so, because they believe that only large-scale plants will help to modernize the developing economies. As a result, many feasibility studies do not analyze what alternative technological possibilities exist and it is often overlooked that less capital-intensive facilities may well have higher financial as well as economic and social rates of return than the recommended large-scale plants. Many industrial development banks are, at present, only lending (in the main) for capital intensive operations, thereby exacerbating the poverty problems with which many of the developing countries have to cope (Helmers, 1979)."

VI. INDUSTRIAL REVOLUTION VIS-A-VIS ORGANIZATION REVOLUTION AND TRANSFER OF SOPHISTICATED TECHNOLOGY-SIZE OF TECHNOLOGY GAP

By experience with development of developing countries, it is clear that countries experiencing wide income inequalities and technological backwardness are prone to exploitation in the disguise of technical assistance by multinational corporations

Figure 1
Size of technology gap in the context of organization revolution



parented in developed countries. This has taken the form of setting up of contracting firms (registered and emergency), which are outposts of multinational corporations and have established their base throughout the developing countries especially in the less-advanced developing countries and imports of all sorts of satisfactory and unsatisfactory products (from the developed countries which have become the crucibles of technology) are undertaken. The result is that those developing countries have acquired sophisticated machines and equipment which they find very difficult to maintain and organizations/companies have introduced advanced technology into economies that are more or less ill-prepared to benefit from those technologies. In such situations, developing countries are forced by circumstances to live with the *Professor M.R. Kumara Swamy measure of technology gap* of 24 years with developed countries and become helpless appendages (Swamy, 1978, UNCTC, 1988).

The *Industrial Revolution* was driven, to a significant degree, by inventions that permitted mass production through the exploitation of economies of scale-through division of labor which led to a situation where invention led to innovation through heavy reliance on the use of non- academically qualified but highly skilled labor with labor mix in the proportion *(one engineer - five technicians - 50 craftsmen)* and this led to glaring wage differentials, especially among craftsmen and technicians (highly-cum-heterogeneously skilled manpower). For example, coke-smelting of iron, the steam engine, the weavers' flying shuttle, the spinning jenny, steelmaking through paddling, the agricultural threshing machine, the railway, and other breakthroughs: all promoted this development.

By contrast, the *'Organization Revolution'* which is multi-faceted involving technological change, international trade, etc., is propelled, in large part, through advances in computer and telecommunication technologies, etc. in conjunction with corresponding human skills, transforming the flow of information in modern economies. According to M. R. Kumara Swamy's research findings, a major implication of this transformation is that it calls for new forms of organizing economic activity and these, in turn, appear to be exerting a major influence by reversing the gear from labor mix (one engineer - five technicians -50 craftsmen during the era of the Industrial Revolution) to a new labor mix in the proportion:

> *"50 engineers - 10 technicians - five craftsmen* during the present regime of the 'Organization Revolution' with heavy reliance on fast dissemination of sophisticated technical knowledge through highly sophisticated-cum-complex technology requiring high level technical manpower (Swamy, 2006)."

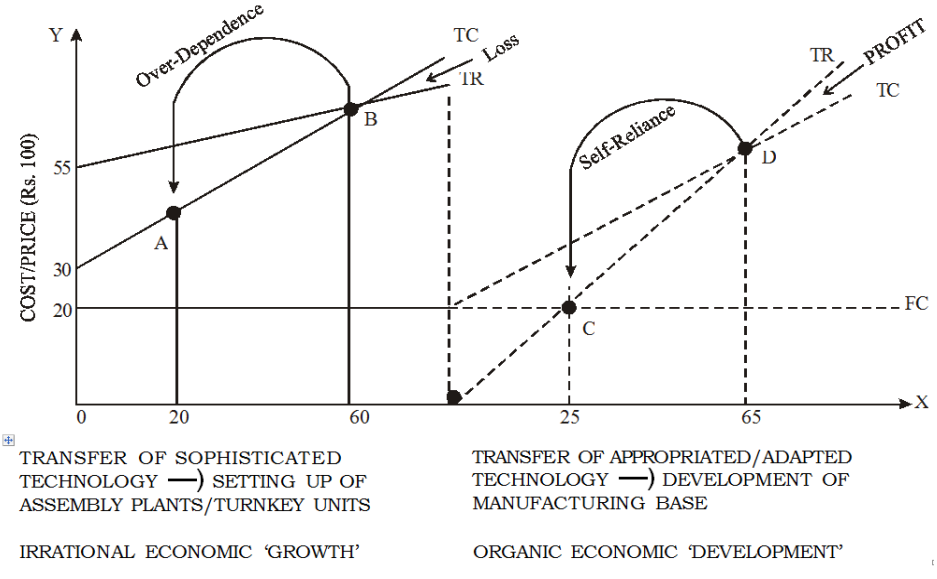
VII. USE OF ARBITRAGE TECHNIQUE

The MNCs shift of incidence or high investment cost incurred via transfer of sophisticated technology and manpower by the operating MNCs in developing countries to the developing (host) countries in the name of economic development by establishing assembly plants and/or turnkey projects is worth analyzing. Research studies have confirmed that while parent MNCs, through their subsidiary-network in several import based-cum-MNC-controlled and expensively-financed developing countries - - all in the name of techno-economic development via transfer of highly sophisticated technology, setting up of the highly capital-intensive assembly plants and turnkey projects, etc. having shorter gestation period - - earn about 600 per cent profits and engage in arbitrage. As

shown in Figure 2, the MNCs will find it profitable to operate at less than breakeven capacity and show the host country that they are operating at normal capacity. By this technique, the MNCs, by taking advantage of inadequate accounting control by the host country, may build up secret inventories and escalate prices (commodity and share prices), and thus engage in arbitrage - - by this process, undervalued assets/inventories/securities are bought and overvalued ones (by overinvoicing/escalating import bills, etc.) are sold in related markets.

Under panic selling conditions, the behavior of futures markets participants determines how much selling pressure is transferred to the stock market. The major participants in the futures market are investors, index arbitragers, and speculators. *During times of panic selling investors sell stock index futures, while index arbitragers and speculators buy stock index futures.* Although both index arbitragers and speculators buy futures, their roles are different - - *Index arbitragers transfer selling pressure to the stock market. Speculators absorb selling pressure* - - This arbitrage technique employed by MNCs provides a possible explanation for the dominance of industrial securities floated by MNCs on capital markets in developing countries. As long as the host government's control over the activities of (MNCs) are not adequate and to the extent that MNCs continue to present mere skeleton accounting data such as profit before/after taxation, dividend (gross), retained profit for the concerned year without bothering to enlighten the shareholders' about the actual sources and applications of funds incorporating the new approach to financial statement analysis, viz., the income-expenditure analysis of accounting data, to that extent, MNCs will continue to take advantage of the bonanza (Swamy, 1996).

Figure 2
Overdependence on MNCs by developing countries



Source: Swamy (1983).

In the case of adoption of sophisticated technology, production starts immediately whereby initial revenue is higher than initial costs; overtime, becomes a liability to the developing country caused by transfer of very expensive sophisticated men, machine and materials from the advanced country to a developing country without supporting local technical personnel and trained management. The gestation period for such assembly plants, etc. controlled by multinational corporations (MNCs) is very short and production, depending on availability of raw materials, starts immediately as shown in Figure 2.

VIII. DO MNCS THROUGH JOINT VENTURES ENCOUNTER PROBLEMS IN DEVELOPING COUNTRIES?

Many developing countries have over the years improved their capabilities and expertise in dealing with MNCs. However, given the range of the issues involved, the rapidity of changes in the international market, the deficiencies in their information base, and the limits of their bargaining position vis-a-vis the MNCs, most developing countries are still short of the necessary skills and expertise in evaluating foreign investment and technology, and in negotiating balanced contractual arrangements. In general, *many developing countries are unable to maximize the contribution from foreign investment and technology or minimize their costs and undesirable effects.* The problems are particularly acute for developing countries that are relatively new to the operations of foreign enterprises and that lack the necessary expertise, experience or manpower resources. In the case of technology acquisitions from foreign suppliers, the choice and assessment of technology, determination of the remuneration for technology, the negotiation of the contract terms, and the monitoring of the technology transfer process have proved to be difficult even for those countries that have acquired some experience in handling foreign investment (UNCTC 1990' UNCTAD 1991).

Major differences between the management style and corporate culture of a MNC and a national partner can lead to failure of a joint venture. For instance, MNCs often emphasize the delegation of responsibility to subordinates, profit-centre responsibility, periodic evaluations of performance, individual initiative, more informal relationships and pragmatism in decision-making. For example, certain *U.S. MNCs adopt a management style under which they delegate operational responsibilities to joint venture affiliates,* which become profit and cost centers and are responsible for profitability and costs; this system evaluates performance of managers of those profit and cost centers monthly, quarterly and particularly annually. *This style of management may not fit with that of the national partner in many joint ventures.* The efforts of the MNCs to adopt this type of management, even with some modifications, can lead to serious conflicts and the disruption of a joint venture. The UNCTAD-Division on Investment Technology and Enterprise Development (replacing the erstwhile UN Centre on Transnational Corporations), with their rich experience and firsthand knowledge for several years on the working of MNCs in developing countries, have conducted detailed case studies on these crucial issues and salient findings of selected case studies are presented below (UNCTAD, 1985).

IX. ILLUSTRATIONS

A. U.S. – Philippines

For example, a U.S. MNC had a 50 per cent-owned joint venture with a national firm to *manufacture paper products in the Philippines* in the early 1970s. The Filippino firm was used to a more authoritarian type of management process and was not accustomed to the delegation of responsibilities to subordinates, accountability for performance, team work and joint decision- making. The two partners could not adapt to each other's different styles of management. As a consequence, they encountered major conflicts and a stalemate on policy and operating decisions. *After about four years of stalemate, the joint venture was terminated.*

B. U.S. – Mexico

In a joint venture between a U.S. MNC and a Mexican firm to *manufacture power-generating equipment,* the U.S. firm sold essential components to the affiliate at an agreed cost plus a standard margin. Further, the affiliate was permitted to purchase such components from other international or domestic sources, if they were available at a lower equivalent price. *Over the years, more and more of these components were produced in Mexico and the sales of these components by the U.S. MNC declined appreciably.*

C. U.S. – Korea

In a pharmaceutical manufacturing joint venture between a U.S. MNC and a national firm in Korea, the U.S. company sold bulk chemicals from its plants in Japan and the U.S. to the affiliate for the production of dosage drugs. The U.S. MNC maintained that those chemical intermediates had the quality essential for efficient production of the dosage drugs and were sold at arm's length prices. The management of the Korean firm regularly evaluated the invoices for imports of those chemicals, examined other possible sources and began to press for reductions in prices and imports from other sources. The joint-venture affiliate started importing a higher proportion of those bulk chemicals from other international sources and local production started to supply more of the local needs.

D. Dow Chemical – Korea

Dow Chemical invested US$ 7 million in a 50 per cent-owned joint venture with the *Korean Pacific Chemical Corporation (KPCC) to produce vinyl chloride monomer (VCM)* in the Republic of Korea. The plant was in production in 1974 and Dow's President for the Pacific region described it as a *real jewel* in the company's operations in the region. In 1976, Dow Chemical invested about US$ 140 million in a wholly-owned subsidiary, Dow Chemical Korea Ltd., to manufacture chlorine and caustic soda: this plant started production in 1979. Dow exported the bulk of caustic soda; but it sold chlorine downstream to the joint-venture affiliate production VCM. Unexpectedly, the Korean partner (KPCC) resisted purchasing the material from Dow, because it felt that Dow was charging excessively and then it could import those raw materials from other sources at lower prices.

Sharp controversy prevailed between Dow and Korean partner for two years. By 1982, KPCC had decided not to continue purchasing the materials from Dow. Faced with substantial losses from its wholly-owned chemical subsidiary and its joint-venture affiliate, Dow proposed a merger of both chemical operations with KPCC becoming a minority

partner in the restructured joint venture. The local partner, ***KPCC rejected the merger proposal.*** In the meantime, Dow officials began criticizing the local partner, stating that its managers did not understand the chemical business and had violated gentlemen's agreements. The public accusations by Dow foreclosed by possibility of reaching a compromise. ***The Korean Government decided to support its local enterprise rather than give way to the pressure of a foreign MNC.*** As a result, in October 1982, Dow sold out its chemical interests in the Republic of Korea to a consortium of Korean firms, and took a loss of over US $ 100 million.

E. Major Problems Can Exist in A Joint Venture with Respect to the Purchase of Intermediates, Components and Other Products from An MNC and the Issue of Transfer Prices.

In some cases the MNC may be the only readily available source of supply for a joint-venture enterprise, at least during the early years of operation, or the MNC partner feels that it should supply components and intermediates in order to assure required quality for production of the end-product. The national partner, in turn, wants assurance that the prices charged by the MNC are arm's length, competitive and fair. If, however, a MNC presses aggressively for continued sales of those intermediates to the affiliate, despite the fact that the partner finds other suppliers at competitive or lower prices, serious conflicts arise between the partners to the venture, which can seriously disrupt relationships.

X. PROBLEMS EMANATING FROM LOCAL CONTENT IN A JOINT VENTURE

The findings of Academician Hyun (2008) research study on Korean and Japanese automotive industries transplantation in Europe are highly relevant.

A. Japan Automotive – U.K.

The local production of *Japanese motor vehicles* was initially intended as a way of avoiding EC trade barriers. However, it merely resulted in new conflicts when indigenous firms and EC countries sought to exclude Japanese vehicles produced in Europe from being deemed as European productions. At the heart of the debate about Japanese motor vehicles produced in the U.K. were said to be not European in origin because the rate of local content was far less than it should be. *During the negotiations between Nissan and the UK government concerning an aid package, the UK government asked Nissan to achieve 60 per cent local content and this figure was eventually to rise to 80 per cent if Nissan wished to label the cars as European.* This standard was adopted for all other cases that followed. Since 1988, Nissan has started to export from the UK to the markets of other European countries. It was announced that the model exported to France had 70 per cent local content, but France and Italy objected and claimed that it should be over 80 per cent local content to be recognized as a European product. Thus, they argued that the Japanese model produced in the UK should not be circulated freely within the market and should be controlled as if it were an imported car.

The method of how to measure the percentage of local content became the center of the argument. The standard set by the UK government was on the basis of "ex-works price". Because this method could include indirect production costs such as administration, marketing, depreciation cost and profit margin, the proportion of direct

cost in the total cost could be minimized. This means that there were possibilities for the Japanese producers to import a crucial part from Japan as long as they maintained a 70 per cent local content rate. These defects in the ex-works formula raised critical debates in Italy and France who declined to accept it as appropriate. The worse was that *there were no international standards by which local content could be precisely measured. In 1988, the motor vehicles produced by Nissan in the UK were claimed to be maintaining the 60 per cent of local content standard. Nevertheless, this was discredited by the Italian producer, Fiat, who totally dismantled a Nissan "Bluebird" model and argued that the European content of the car was, in fact, only 21 per cent.* This argument was based on another definition of local content Fiat approached this issue by using a different method of assessing local content. This was designed to only evaluate costs directly connected to production. Indirect costs, profit margin, costs of plant construction and machinery purchase may comprise around 42.5 per cent of the vehicle price. After the local content dispute, Japanese motorcar manufacturers shifted parts procurements sources to local suppliers. Local content was off the agenda in the latter half of the 1980s.

B. Korean Automotive – Europe

The level of the localization of the Korean automotive industry in Europe seems very low. The production of motorcars relies mainly on complete knock down (CKD) and semi knock down (SKD) assembly. In particular, SKD is the prevailing production method of the Korean manufacturers. SKD is distinguished from CKD in a particular manner : while CKD production is carried out at local plants with separate components imported from home country, most of the production activities of SKD are finished in home country plants. The transplant in the CEECs initially diverted the local content dispute but, since the tariff-free exports from the CEECs to the EU have started, this production method could become an actual problem. In addition, the most remarkable consequences of this production method are likely to stem from the Screwdriver Regulation and Rules of Origin, which were developed from anti-dumping legislation in 1987 (Hyun, 2008).

At this point, the words of a reputed management consultant are pertinent to quote:

> "Parent companies that change their inter-company pricing structure frequently find that the foreign managers become confused and demotivated. The foreign managers not only see their operating results influenced by factors beyond their control, but inter-subsidiary performance comparisons also become much more difficult. It is worth nothing that U.S. MNCs tend to charge their subsidiaries with corporate services, such as management fees, corporate interest charges, data processing services and research and development more often than non-U.S. MNCs charge their subsidiaries for their related services. This is particularly true for companies in a start-up phase with the result that often substantial costs incurred in connection with the founding of a foreign subsidiary are hidden in the corporate expense pool and thus not measured and evaluated in judging the overall appropriateness of the investment decision (Neuhauser, 1990)."

XI. CONCLUSIONS

A performance evaluation system for MNCs should encompass a transfer pricing policy consistent with the overall corporate objectives. This is essential because the pricing of equipment and services transferred among affiliated companies in a MNC can have a dramatic effect on sales and profits in total and for each organizational unit, especially in international operations.

A crucial purpose of a good performance evaluation system is to help management anticipate any problems in time to take corrective measures. Thus, an evaluation system should facilitate regular monitoring of actual performance versus corporate targets. At this point the message of Price Waterhouse and company to corporate managements is to insist that pertinent management reporting be made available promptly to the auditors and to the benefit of both parties (Leonard, 1988).

APPENDIX A

A. Explanatory Analysis of Figure 1

Y1 - Invention by developing countries (research findings) B^1 - Innovation by developed countries (application of research findings require highly advanced technical and scientific knowledge).
('Organization Revolution' with labor mix: 50 Engineers - 10 Technicians - 5 Craftsmen)
This consists of two technical cells: (i) Sophisticated and Secretive cell, exclusively manned by innovating country nations. (ii) Unsophisticated technological cell, open to the use of non-innovating country nations.

A1 - Intermediate know-how falling in category B^1 (ii) offered to scientifically-advanced developing countries: Accessible in a crude form based on latest publications of research findings and these can be understood by advanced post-graduate degree holders with rich in-plant experience in advanced developing countries. *Of late, India and Korea, for example, are emerging as advanced industrialized countries to join the elite club of industrialized countries. Between B^1 and A^1, the time gap is 10 years. Thus, people deputed from advanced developing countries, say in Space/ Missile Technology are furnished with 18-year old technology by developed countries like U.S.A. as shown by the time lag between A^1 and Y^1.*

O1 - Secondary know-how (mediocre) offered to less-advanced developing countries like fitting bolts, nuts, etc. require middle-level technical education: This neither helps the country concerned nor the trainee. The time lag between O^1 and A^1 is 6 years. *BETWEEN O^1 AND Y^1, TECHNOLOGICAL GAP IS 24 YEARS BETWEEN DEVELOPED AND DEVELOPING COUNTRIES* B - Invention by scientifically-advanced developing countries. C - Innovation by scientifically developing countries. *BETWEEN B AND D THE TECHNOLOGICAL GAP IS 3 YEARS (Industrial Revolution with labor mix: 1 Engineer -5 Technicians -50 Craftsmen).* D - Imitated Innovation of developed countries by scientifically-advanced developing countries. The time lag between B and D is 6 years. E -Adapted technology by advanced developing countries like India and South Korea, after experimenting with research findings in their R and D cell and in their laboratories adapt to the scientific and economic environment of

advanced-developing countries. A=Adapted technology accessible to less-advanced developing countries like Nigeria.

BETWEEN A and B, THE TECHNOLOGY GAP IS 12 YEARS BETWEEN MORE ADVANCED-DEVELOPING COUNTRIES AND LESS-ADVANCED DEVELOPING COUNTRIES

1. Scientifically and technologically less-developed developing countries like Nigeria, by making use of adapted technology offered by scientifically advanced developing countries like *India* to suit Nigeria's environment, can pick up this technological know-how and can be used to build technological base in Nigeria to set up machine tool industry, precision instruments factory, plants to manufacture sugar, alcohol and textile machinery, electronics industries, etc. By this, the middle-level technical manpower in Nigeria can increasingly obtain high-level technical experience in scientifically-advanced developing countries.
2. The existing technological gap of 24 years between, say U.S.A. and Nigeria can very well be reduced to 12 years by resorting to technical assistance from technologically-advanced developing countries.
3. To manufacture cent per cent made, for example, in Nigeria machines, etc. Nigeria must build her own technology: This would be possible only by technical collaboration between Nigeria and scientifically-advanced developing countries or, in other words, the secret of technological success of Nigeria lies in a proper admixture of intermediate know-how of advanced developing countries and secondary know-how of less advanced developing countries like Nigeria.
4. In the name of indigenization, the local entrepreneur, ill equipped, will start taking over the company without supporting techno-managerial ability to handle those sophisticated equipment, etc. As a result for small faults the local entrepreneur will have to depend on very expensive and possibly suboptimal technical manpower from an advanced country (where a technician in a developed country robes a chief engineer's dress in a developing country) or else the equipment is dumped as white elephant.

B. Explanatory Analysis of Figure 2

Indicators	Towards Overdependence	Towards Self-Reliance
Fixed Cost (N 000)	20	20
Total Cost (N 000)	30	20
Total Revenue (N 000): (Initial Stages)	55	0
Plant Capacity Utilization	Point A: 20 Point D: 60	Point C: 25 Point D: 65
Gestation Period	Fairly Short -	Long -
(Plant exercise and commissioning)	Production starts immediately, Initial revenue > initial costs - -	Production does not start immediately, Initial cost > initial revenue
	Causes overcapitalization overtime.	Causes fair capitalization
Profitable % of Capacity Utilization	3 0-40	65 and above
Capacity to Maintain in the Developing Country Overtime	Very difficult: caused by transfer of sophisticated men, machine and materials from the advanced country to a developing country without supporting local technical personnel and trained management.	Easy: the result of development of adapted/appropriate technology by the R&D efforts of techno-managerial trained personnel suited to the needs and norms of developing countries.
Overall Result Overtime	Becomes a financial liability to the developing country: short-term profit and long-term losses. Profit maximization at less than capacity-utilization **(GIVES DEVELOPMENT RELIEF)**	Becomes a tangible asset to the developing countries: long-term profit and short-term losses. Profit maximization at higher capacity utilization. **(PROVIDES DEVELOPMENT CURE)**

REFERENCES

Cohen, S.D., 1989, "The U.S. Trade Act: A Market-opening Initiative, Economic Impact: Economic News from the United States," *Information Service*, July & August.

Egwuatu, G.C., 1984, "Engineering Prospection into Nigerian Economic Scene," Guest lecture delivered at the Institute of Management and Technology: Mimeo, Enugu: April 2.

Helmers, F.L.C.H., 1979, *Choice of Technology: The Case of the Indonesian Rice Mills.* World Bank.

Hyun, J.H., 2008, "A Comparative Analysis of Transplants and Industrial Location of Japanese and Korean Automotive Industries in Europe", *International Journal of Business*, 3, pp. 215-236.

Leonard, T.B., 1988, "Judicious Use of Management Reports by Auditors", *Journal of Financial Management and Analysis*, January, pp. 59-66.

Neuhauser, L., 1990, "Analyzing MIS of Multinational Corporations: An External Auditor's Viewpoint", *Journal of Financial Management and Analysis*, January-June, pp. 58-63.

Okereke, U.S., 1982, "The Anatomy of Financial Waste in Nigeria through Multinational Corporations", *Nigerian Journal of Financial Management*, June, pp. 35-40.

Smith, Adam, 1937, *"An Inquiry into the Nature and Causes of the Wealth of Nations: 1 776."* The Modern Library: Random House, p. 800.

Swamy, M.R.K., 1978, "Federal Radio Corporation of Nigeria: Exclusive Interviews with Professor M. R. Kumara Swamy on *Multinational Corporations in Nigeria***",** Enugu and Lagos, June.

Swamy, M.R.K., 1983, "A Financial Management Analysis of Transfer of Technology: Adapted or Sophisticated – A Measure of Technological Gap in the Nigerian Economy", *Nigerian Journal of Financial Management*, June, pp. 64-86.

Swamy, M.R.K., 1988, "Focus on Functional Relationship between Technology Gap and Poverty Gap: Financial Management Considerations for Developing Countries", *Journal of Financial Management and Analysis*, July-December, pp. 15-27.

Swamy, M.R.K., 1996, "Do Multinational Corporations (MNCs) Engage in Arbitrage Using Gamblers Earnings Hypothesis: Focus on Widening Technology Gap", *Journal of Financial Management and Analysis*, July- December, pp.59-68.

Swamy, M.R.K., 2003, "Are Super 301 Provisions of the U.S. Omnibus Trade and Competitiveness Act of 1988 Gainful to Development Countries? A Financial Management Analysis", *Journal of Financial Management and Analysis***,** January-June, pp.59-65.

Swamy, M. R. K., 2006, "Focus on Technology Gap versus Wage Differentials vis-a-vis Capacity Utilization in the Context of Organizational Revolution, Financial Management Implications for Policy", *Journal of Financial Management and Analysis*, January-June, pp. 81-90.

U.N. Centre on Transnational Corporations, 1990, *New Issues in the Uruguay Round of Multilateral Trade Negotiations.* Current Studies Series No. 19, July.

U.N. Centre on Transnational Corporations, 1990, *TNCs and the Transfer of New and Emerging Technologies to Developing Countries***,** August.

U.N. Centre on Transnational Corporations and U.N. Conference on Trade and Development, 1991, *The Impact of Trade-Related Measures on Trade and Development*, December.

U.S. Trade Representative, 1989, *Computerized Survey*, Washington, D.C. UNCTAD, 1985, *TNCs and International Trade: Selected Issues*, February.

United Nations Centre on Transnational Corporations, 1988, "TNCs and Technology Transfer to Developing Countries", *CTC Reporter*, Autumn.