

# UNDERSTANDING DUNNING'S OLI PARADIGM

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## ABSTRACT

*OLI (Ownership, Location, Internalization) Paradigm or Eclectic Paradigm developed by John Dunning provides a holistic framework to identify and evaluate the significance factors influencing foreign production by enterprises and the growth of foreign production. The idea of OLI was first conceived, by Prof. Dunning, after witnessing 2 to 5 time's higher labour productivity of US manufacturing industry in UK's industry, when the US affiliates in UK were no better than their UK competitors, and much poorer than that of their parent companies. Subsequently Dunning developed the Ownership specific, Location specific and Internalization advantages of an MNE (Multinational Enterprises), which became the OLI Paradigm, which explains the reasons for differences in international production. Time and again Dunning himself assessed the practical applicability of this paradigm to the dynamic situations of international activities of MNEs, where he proved to be successful. This paper reviews the OLI Paradigm explained under different dimensions of MNE activities and makes an attempt to understand the ideas of Dunning on international production.*

**Keywords:** OLI Paradigm, MNEs, MNCs, International Production, Foreign Direct Investment.

**JEL Classification Code:** F21, F23

## Introduction:

The literature of International Economics in the recent times is highly dominated by the diverse operational aspects of Multinational Enterprises (MNEs). Cross-border activities of the multinationals in goods and factors of production make them fall under the broad category of international economics. In the process of undertaking such activities, they create and transfer new skills and technologies, which make them to enter into theories pertaining to economic development. Sharing of costs and benefits between countries within their operations makes them to fall under the perspective of welfare economics. MNCs (Multinational Corporations) flexible operation adds new dimensions to the theories of industrial relations. All of the above ultimately help to enrich the monetary and fiscal activities and policies of governments which in due course lead into the enrichment of the economy and society as a whole. There is a host of theories which attempt to explain the reason and purpose for the existence of MNEs, which answers some of the fundamental questions like: a) what motivates national firms to go and produce abroad?, b) what enables them to do so, c)

why do MNEs undertake different forms of investments abroad.

Many theories make an attempt to explain the reasons and purposes for the existence of MNEs. These theories try to answer few basic questions on MNEs- for example-the motivation, enablers and different forms of investment by MNEs across globe. Of all the theories on international business, MNEs and FDI (Foreign Direct Investment), the one developed by Dunning (1973, 1979) received prominent support globally. This paper attempts to look into the Eclectic Paradigm or OLI paradigm as propounded by John H. Dunning, with its practical implications and critics. The purpose of undertaking this study is to understand the extent to which the Ownership, Location and Internalization OLI paradigm is able to explain the activities of MNEs and FDI. This paper adds value to the research literatures of cross border activities of MNEs and FDI and explains the reason why firms undertake cross border production operations, FDI over other forms of internationalization.

In the literatures of international business and especially FDI, more research is focusing on identifying the micro and macro determinants of FDI. Studies which focus on the theoretical exposition of

different types of FDI are scarce. This study follows descriptive research design where a critical review of the Ownership, Location and Internalization theory of Prof. John Dunning has been undertaken. This paper falls under the category of conceptual and descriptive research study.

### Originality:

This researcher made an in-depth study of different theories like product life cycle theory of Raymond Vernon (1966, 1979), industrial organization theory of Hymer (1960) and Caves (1996), theory of FDI based on strength of currency by Aliber (1970), theory of Foreign Direct Investment by Aharoni (1966), factor endowment theory by Heckscher-Ohlin (1919, 1933), theory of perfectly competitive market by McDougall (1958), contributions of Dunning (2001) in eclectic paradigm of international production-past, present and future, eclectic paradigm of international production: A restatement and some possible extensions and determinants of international production, investment development path of Dunning and Narula (1993), are the few to mention. Research paper of this nature are rare.

Further this paper also makes a critical evaluation of OLI and how OLI led to the evolution of investment development path which is also briefed in this paper. This study indicates that the eclectic paradigm explains about the activities of multinationals in undertaking Foreign Direct Investment over other avenues of international investment. After postulating this theory, Dunning himself has revised his work, so that the theory is fit to the changing dynamic situations across boundaries. The OLI paradigm is also instrumental for the investment development path developed by Dunning and Narula, and the Economic Geography developed by Kurgman and Elizando.

### The OLI Paradigm:

The core theory in the area of international business is associated with the analysis of Multinational Enterprise (MNE). Two theories originating from the University of Reading dominates the scenario. One is the Eclectic Paradigm or OLI Paradigm originally proposed by John Dunning (1988), the second, Transaction Cost approach developed by Buckley and Casson (1983). The objective of OLI paradigm was to develop a broad and encompassing view of the MNE, while the transaction cost approach was intended to develop a technical understanding upon the working of MNEs. OLI paradigm offers a unifying framework for understanding the extent and pattern of foreign owned activities, which are driven by three sets of advantages, namely: Ownership, Location and Internalization (OLI) advantages. The extent of presence or absence of OLI either encourages or discourages firms from undertaking foreign activities. For more than two decades, the eclectic/OLI paradigm

proved as a unifying framework for research on multinational enterprises. Numerous scholars, including Dunning himself, have continuously modified and extended the paradigm to analyze new research questions emerging with new dimensions of international business and with increased globalization (Meyer, 2004). The paradigm, more than a theory, (Itaki, 1991), acts as an analytical framework for testing empirically the operations of MNCs and facilitates to draw conclusions to diverse problems.

### Origin of the Paradigm:

The eclectic paradigm (or the eclectic theory as it was initially called) of international production was first propounded by Nobel Laurate Dunning in the Symposium in Stockholm in 1976. The paradigm is an outcome of his doctoral thesis in mid-1950s. Dunning indicates that, the research work undertaken by authors like Rostas (1948) and Frankel (1955) identified, that the labour productivity of US manufacturing industry operating in UK showed 2 to 5 times higher, than that in UK industry. This phenomenon posed some pressing questions like: Was the difference in productivity is an outcome of the superior and indigenous resources of US, or, is it because of the proficiency of the US managers. Was this difference in productivity a reflection of the superior indigenous (and immobile) resources of the US economy; or due to the more proficient way in which the managers of US firms harnessed and organized these resources? - a capability, to some extent, transferable across national boundaries.

Dunning's hypothesized that, if US manufacturing affiliates in UK is performing well, then, the US affiliates must considerably perform better than their indigenous home competitors. Later he identified this phenomenon as the "Ownership-Specific Effect", (O-Ownership "O"advantages) as the productivity differences were assumed to rest on transferable intangible assets of parent companies. But, he found that the US affiliates in UK were not better than their UK competitors, at the same time poorer than that of their respective parent companies. This phenomenon is the result of non-transferable effect of the US economy, and Dunning called it as, the "Location-Specific Component (L- Location "L" advantages) of any productivity differential.

Dunning presented his paper in the Nobel Symposium in 1976 in Stockholm on International Location of Economic Activity, where, he focused on the fact that country's economic space takes a. value of output produced within national boundaries independently of ownership of that production and b. output produced by a country by its firms plus that part produced outside its national boundaries.

To understand the functioning of firms outside national boundaries, Dunning extended the Ownership and Location advantages. Ownership and location

relates to the way a firm organizes the generation and use of resources, capabilities in different locations, Level of foreign value added activities create or exploit ownership advantages which are integral and such advantages he referred to as Internalization (I advantage). Thus, Dunning's paradigm explains about the generation of the Ownership, Location and Internalization to know about the extent and geography of value added activities of multinationals. In explaining the activities of firms functioning outside national boundaries, he extended the O and L advantages, which is identified earlier and included another set of choices available to firms, which related to the way the firms organized the generation and use of the resources and capabilities within their jurisdiction and those they could access in different locations. The extent and pattern of foreign value added activities of firms opted to generate and or exploit Ownership advantages is internal, rather than acquire or sell their rights through the open market. Such advantages he referred to as "Internalization (I advantage). Dunning's paradigm thus, explains about the generation of the OLI tripod in understanding the scope and geography of value added activities of MNEs.

### Major Propositions of the Eclectic Paradigm:

The extent and pattern of international production, will be determined by; 1. Competitive advantages of firms of one nation over others. These competitive advantages can be the result of the firm's ownership, access to assets which are capable of generating income, or due to firm's privileged ownership. 2. Firms ability to internalize markets and generating assets, and 3. Locating these activities by firms outside their national boundaries. Dunning further indicates that the significance of each of the above mentioned advantage and the configuration between them will be context specific, which will change across industries (or types of value-added activities), regions, countries (geographical dimension) and among firms.

The variables identified by eclectic paradigm are well grounded in economic and organizational theory. Variables like labour costs, tariff barriers, presence of competitors, agglomerative economies are mostly in close relation with location theory. OLI paradigm, rather than explaining all kinds of international production, points out a methodology which explains particular type of foreign value-added activity.

### Interdependence of OLI variables:

The OLI variables are inter dependent on one another. For example, a firm's response to its exogenous locational variables can influence its ownership advantages. A particular research and development strategy, intended to strengthen a firm's competitive position can question the existing innovatory facilities;

while a change in a firm's organizational structure may directly affect its ability to penetrate the markets of its competitors. Presence of this phenomenon overtime can make the variables insignificant. Dunning (Dunning 1993a, 1995b, 1997, 2000b), stresses on the interdependence of OLI variables.

An FDI based on Ownership advantage (O advantage) of investing firms in time  $t$  may affect the Locational advantage (L advantage) of the host country in time  $t + 1$ . But, when firms adopt 'voice or exit strategy' to market failure (Hirschman, 1970) arising from locational choices, it will affect the forthcoming Ownership advantages. Dunning further suggest that the successful coordination of foreign firms with respect to the Ownership advantage and the Locational advantage of domestic firms is affected by the nature and manner of resource use, which determines the level to which a particular country is able to sustain and upgrade its wealth creating capacities over a specific period of time.

### Role of Strategy in OLI Paradigm:

Critics believe that the paradigm is insufficient in allowing differences in the combinations and configurations of OLI variables, which makes it more static and less applicable for the dynamic process of internationalization of firms. To the critics above, Dunning replies in his book titled, "The Globalization of Business" (Dunning, 1993 b), in any given moment of time, extent and pattern of MNE activity represents a point which is a set of trajectories towards or away from their internationalization path. This particular trajectory is set after many rounds of iteration between the OLI configurations over successive time. Firm's strategy in response to these configurations will influence OLI configuration in the subsequent period of time, which is explained by Dunning mathematically using equations in different time periods as shown below.

**Let**

(OLI)  $t_0$  -----OLI configuration in time  $t_0$

(OLI)  $t_1$  -----OLI configuration in time  $t_1$ ,

$S_{t-n}$  -----past strategies of firms still being worked out, (i.e. pre  $t_0$ )

$\Delta S_{t_0} \rightarrow t_1$  -----any change in the strategic response of firms between time  $t_0$  and  $t_1$ .

When other things being equal,

$OLI_{t_1} = f(OLI_{t_0}, S_{t-n}, \Delta S_{t_0} \rightarrow t_1)$ ----- (1)

Extending this analysis to second time period  $t_2$ , then:  
 $OLI_{t_2} = f(OLI_{t_1}, S_{t-n}, \Delta S_{t_1} \rightarrow t_2)$ ----- (2)

This analysis further suggest that  $S_{t-n}$  and  $S_{t_0} \rightarrow t_2$  determine the path of the movement from OLI  $t_0$  to OLI  $t_2$

With the help of above equations, Dunning indicates that a firm's Ownership and Location position affecting the investment in time  $t+1$  in mature stage of product cycle is affected by Ownership and Location configuration in the early stages of the cycle and also

by the changes in exogenous variables like foreign demand, and endogenous variables like the presence or absence of economies of plant size, change in firm strategy with time.

### **Extension and Reconfiguration of Eclectic Paradigm:**

One of the first applications of eclectic paradigm is to examine the changes in international position of countries in terms of its development attained with foreign investment, which was made possible through "Investment Development Path" (IDP). IDP was first developed in 1975 by Dunning and Narula, with the basic hypothesis that, when countries develop, its Ownership Location and Internalization advantages undergo changes. Further, IDP also indicates that OLI advantages of foreign-owned and domestic firms changes. This change facilitates to identify conditions necessary for creating effective development. This concept suggest ways in which interaction between foreign and domestic firms influence each other in a country's investment path. There are several stages in IDP, there were originally four stages whereas the fifth stage was later developed by Dunning and Narula (2010). IDP revolves around the Inward FDI, Outward FDI with its economic development. Stage one indicates very little inward FDI and outward FDI. Stage two indicates market seeking inward FDI with little outward FDI. Stage 3 indicates rising inward FDI and outward FDI. Stages 4 & 5 indicate increasing inward and outward FDI.

### **Relevance of the Paradigm to explain the Patterns of Trade and Portfolio Investment:**

Eclectic theory can also explain the level and pattern of trade. As Dunning suggest that firms would export goods and services from a production base of home country whenever the L advantages of creating and utilizing their O-specific advantages were greater than serving the foreign markets from a foreign location. The extent to which exports were internalized within the firm or sold to third party would reflect the relative transaction costs of the two modes of serving the foreign markets. Similarly, the extent to which firms imported goods and services, as compared with producing them in a domestic location, would depend on relative location bound assets offered by the exporting and importing countries, and the relative O advantages of the importing firm. The role of the O advantages of firms in addition to the L advantages of countries, together with the relative costs and benefits of accessing or exploiting these two sets of advantages by way of intra-firm rather than inter-firm cross-border transactions -trade theory needs to be enriched further. Finally Dunning and Cliff takes account of technological innovations of the 90s, with the advent of E-commerce and Internet and its relevant effect on MNE activities. Both identify the specific attributes

and responses of this new technology. They explore the likely impact of the growing importance of relational assets both at the corporate and social level, on the OLI configuration affecting MNE activity (Dunning, 2001). In particular they have argued that as the access to exogenous resources and capabilities and the organization of them with internally owned resources and capabilities becomes important determinant of commercial success, then the willingness and ability of firms to conduct harmonious value-adding and/or exchange relationships becomes a critical advantage, which are cumulative, and arise from previous or current network relationships.

At the macro level, social relational capital measured by the lack of crime, bribery, corruption and terrorism is becoming a more important factor influencing the location of economic activity by MNEs, while the balance of costs and benefits in owning or accessing resources and capabilities is affecting the way in which they are organized. In examining the implication of these two developments- the one relating to the innovation and deployment of new technological assets, and the other, on human assets - the eclectic paradigm provides a powerful analytical framework. Within that framework it also offers a number of new contextually related hypotheses, as a result of which, theories of the firm and the location of economic activity may require a reappraisal.

### **Concluding Remarks:**

First, although the eclectic paradigm refers to the individual firm, the main focus of interest is in explaining the international production of all firms from a particular country or group of countries. Because of this, Dunning indicates that it is inappropriate to compare the merits and demerits of the eclectic paradigm with that of internalization and other theories of the firm. Second, some O-specific advantages are directly the result of firms internalizing the market for its intermediate products across national borders. However, since this act of internalization puts the internalizing firms at an advantage relative to non-internalizing firms, Dunning thinks it appropriate to refer to this benefit as an advantage and internalization as the modality by which this advantage is realized. Third, the eclectic paradigm initially was incomplete in dealing with the dynamics of international production. However, it can help in explaining the reasons for an industry's or country's international investment profile being different in different points of time. To link these two points, one need to introduce changes in the exogenous or endogenous variables, as explained in the IDP at the macro level.

There are other paradigms which seek to offer general explanations of the internationalization process of firms and/or their international management strategies, which Dunning do not consider to be competing

paradigms. Managerial – related paradigms, for example, are interested in explaining the behaviour of managers in harnessing and utilizing scarce and non-imitable resources, not the overall level and pattern of FDI or MNEs activity (or changes to same). Organizational paradigms are directed at evaluating the costs and benefits of alternative institutional mechanisms for organizing a given set of resources and capabilities, independently of the location of these assets. Paradigms offered by marketing scholars usually focus on the process and/or form of international market entry and/or growth. Technologically and network-related paradigms of international production come nearest this approach, but cannot comfortably explain some kinds of FDI in developing countries and in some service sectors. With few exceptions modern paradigms of international trade ignore the significance of firm-specific advantages. Finance-related paradigms can offer only limited insights into the growth of corporate networks and cross-border strategic alliances. An add-on dynamic component to the eclectic paradigm, an extension of its constituent parts to embrace asset-augmenting FDI and cross border non-equity ventures, and a more explicit acknowledgement of increasing role of the access of ownership of resources and capabilities can do much to uphold its position as the dominant analytical framework for examining the determinants of MNE activity. In the recent times with new technological and economic events, the emergence of new explanations of MNE activity have added to, rather than subtracted from, the robustness of the paradigm. While accepting that, in spite of its eclecticism, there may exist different kinds of foreign-owned value-added activities which do not fit comfortably into its construction, but OLI paradigm continues to meet most of the criteria of a good paradigm (Foss, 1996).

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