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'TERTIARIZATION' OF MANUFACTURING INDUSTRY IN THE NEW ECONOMY

EXPERIENCES IN HUNGARIAN COMPANIES

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SUMMARY*

A thorough process of adjustment to a new business environment and a new set of competitive conditions have ushered a new business model into the 'new' economy. According to this model, a sustainable competitive advantage derives from an ability to integrate hitherto separate activities in a new, creative manner and combine elements of 'old knowledge' with new. The new combination of activities has blurred corporate boundaries. Manufacturers are performing a rapidly increasing number of services, causing a kind of 'tertiarization' of manufacturing, which helps to blur the boundary between the industrial and service sectors as well. Incorporating service provision into manufacturing builds the bridge between the old and the new economy, as new-economy characteristics filter down to the traditional areas of the economy, making them more knowledge and technology-intensive.

The accelerating process of tertiarization in advanced economies has special interest for observers in transforming countries, of which the more advanced have already begun to follow the same path, although they are still far behind. As these countries were incorporated into the global structure of manufacturing, during the early years of the transformation from state socialism to capitalism, there developed a partial geographical separation of production-related service activities from physical production activities. Some of the physical processing tasks have been assigned to newly acquired and modernized firms in transforming countries, but they have become production facilities with a single function, operating within their multinational owner's group. As factor costs in transforming countries increase, however, the initial competitiveness of simple processing activities there has been eroding. Both local subsidiaries and parent corporations recognize that the only way to offset the declining profitability of certain manufacturing activities is to redefine the role of the subsidiaries in the value chain. This means broadening their activities to include some services.

The first chapter describes the conceptual basis behind the tertiarization of manufacturing. The paper then goes on to develop some predictions about the changes in the structure of international trade in services, resulting from the tertiarization process. It analyses some methodological difficulties with statistics on international trade in services – difficulties in quantifying the volume and value of intra-firm services. The next chapter recounts the findings of a field survey taken in 2002. Ten engineering subsidiaries of large multinational corporations (MNCs) in Hungary were examined for signs of integration of service activities into their manufacturing. The survey looked into the way the activity portfolio of the ten firms had diversified and into the implications of this process for their profitability.

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INTRODUCTION

Academics, corporate analysts and private investors are unanimous in stating that the 'new economy' has altered the market valuation of firms. The relation between equity value and traditional financial and balance-sheet variables has changed. Strategic managers are aware that companies now have to capitalize on their own and outside knowledge, so that the strategy of simply slicing up the value chain and geographically optimizing factor costs no longer provides automatically a sustainable competitive advantage.

One meaning of the label 'new economy' is that economic actors operate according to a new business model, in which the traditional factors determining competitiveness no longer apply. Under the new business model, knowledge becomes a more important production input than physical capital. The value of goods is determined increasingly by intangibles such as brand name, comprehensiveness of product-related services, and so on. One vital determinant of competitiveness becomes the *ability to combine new elements of knowledge with traditional ones* and thereby create new, comprehensive value.

This combination of new and traditional knowledge blurs corporate boundaries: companies are competing increasingly often outside their traditional boundaries as well. The best example of blurred boundaries, of the increasing role of intangible elements in value creation, and of the widespread combination of new and old elements of knowledge is the fact that manufacturers carry out a rapidly growing number of service activities, which produces a pronounced 'tertiarization' of manufacturing industry.

The more advanced of the transforming countries have already begun to follow the same path, although they are still far behind. In the early transformation years, there developed a partial geographical separation of production-related service activities from physical production activities. Some of the physical processing tasks have been assigned to newly acquired and modernized firms in transforming countries, but they have become production facilities with a single function, operating within their multinational owner's group. As factor costs in transforming countries increase, however, the initial competitiveness of simple processing activities there has been eroding. Both local subsidiaries and parent corporations recognize that the only way to offset the declining profitability of certain manufacturing activities is to redefine the role of the subsidiaries in the value chain. This means broadening their activities to include some services.

The field survey described in this paper was carried out in 2002. Ten engineering subsidiaries of large multinational corporations (MNCs) in Hungary were examined for signs of integration of service provision into their manufacturing. The survey looked into the way the activity portfolio of the ten firms had diversified and into the implications of this process for their profitability.

The first chapter describes the conceptual basis of the tertiarization of manufacturing. Next, the paper develops some predictions about the changes in the structure of international trade in services, resulting from the tertiarization process. The third section summarizes the findings of the survey.

1) THE CONCEPTUAL BASIS BEHIND INTEGRATION OF MANUFACTURING AND SERVICE ACTIVITIES

Tertiarization of manufacturing can refer to two things. One is the mounting importance to competitiveness of the *efficiency of internal services*, above and beyond the tradi-

tional determinants, such as quality of corporate technology and human resources, efficiency of operation, and volumes of assets and current capital. Such internal services include product and process development, design, logistics, extension training, induction training, and value-chain management. The last in itself is a complex bundle of internal services, comprising not only procurement of materials, but identification of new suppliers, auditing of them, technology transfers to suppliers and cooperation with them on increasing their efficiency, improving quality, cutting costs etc. Internal services also comprise organizational development and coordination, human resource management, accounting, bookkeeping, and legal and financial services. In short, competitiveness derives not only from the efficiency of traditional processing activities, but from efficient organization and provision of internal services whose number and complexity continually increases.

The other meaning of tertiarization is *the growing complexity and importance of external, product-related services* to customers for products. Product-service packages include not only maintenance and repair, but financing of purchases, transportation, installation, system integration, technical advice on maximizing product benefits, and operational support. Product-associated services, as an intangible element of output, account for a rising share of total product value and manufacturing turnover.

The consequence is that the traditional profitability calculations are becoming meaningless. Analysts no longer calculate the profit margin on individual products, because products have to be seen as part of a bundle or system of related products and services. It is becoming increasingly common to apply a pricing strategy that allows zero or negative profit on the core product itself. The profits are then earned on the related products and services.

There is nothing new about integrating manufacturing and service provision as such. In 1995, the Fortune 500 list took the demonstrative step of ceasing to publish lists of manufacturing and service-providing companies separately. Its unified list of top American companies meant abandoning the classification of companies by 'primary' products, which it was argued had caused significant distortions for a long time ('A New 500 for the New Economy'. *Fortune*, May 15, 1995). In an era when outsourcing of manufacturing activities had become common and a significant proportion of the revenue of primarily manufacturing firms came from services, it no longer made sense to publish separate lists. By that time, 40 per cent of the revenues of manufacturing giant General Electric (GE) were attributable to its service activities. Six years later, in 2001, the share of its revenues deriving from manufacturing and sale of goods was hardly greater than that: 41.8 per cent (*GE Annual Report 2001*, p. 2. Own calculation). The sales share of goods at IBM, another basically manufacturing firm, was 42.7 per cent in 2000 (*IBM Annual Report, 2000*, p. 16. Own calculation).

It can be argued that the incorporation of services into manufacturing provides a channel between the old and new economies, so that new-economy attributes can seep through to old sectors of the economy, making them more knowledge and technology-intensive.

Cowan et al. (2001) identify three attributes to distinguish manufacturing and services (i) Services have an intangible character. (ii) There is intensive participation by customers in service provision. (iii) Provision and consumption of services coincide in time. Zagler (2002) added a fourth factor: the uniqueness of services. Each service is provided individually for each customer, whereas manufactures are made in series, even in mass quantities.

The integration of manufacturing and service provision is best demonstrated by the fact that none of the factors just mentioned are exclusive to services. Looking at the characteristics of goods manufacture in the era of the 'new economy', one aspect of

the definition of the new economy[1] is the 'dematerialization' of products, i.e. the fact that intangible elements account for a large and increasing share of their total value. As for the participation of customers in service provision, this also applies to manufactures, in an age of mass customization and widespread manufacturing to customer specifications. There are more and more products in whose production the customer participates intensively. As for the coincidence of provision and consumption of a service, this too can be said to extend to manufactures to some extent. Modern inventory management, delivery 'just in time', and custom manufacturing practices have helped to shorten considerably the time that elapses between production and consumption of manufactures. The other side of the coin is that many types of services have become standardized, entered international trade almost like products. (Think of packaged software, which is a service according to its current trade classification.) The time between the production and the consumption of these 'services' has become longer.

While standardization of services takes a step away from uniqueness and individuality towards mass production, mass customization of manufactures is a step towards individuality. Here again, there is convergence between manufacturing and service provision.

2) Tertiarization and changes in the structure of international trade in services

Structural change – shifts in the GDP shares of the three main economic sectors – is one of the most conspicuous aspects of economic development. Researchers extensively discuss the changes in the proportions of the three sectors (in GDP or employment), make international comparisons, or examine the relation between changes in the sectoral composition of manufacturing and economic growth (Lucas 1988; Fagerberg 2000). However, little research has been done on the aspect of structural change just described: the integration of manufacturing and services.[2] This topic tends to be discussed more in international business literature focused on corporate strategy, restructuring of MNCs and the emergence of networks.

Wise and Baumgartner (1999), for example, remind practitioners that manufacturers' traditional value-chain role of producing and selling goods has become less and less attractive. Manufacturers have to reconsider their strategic priorities, redefine their core competencies and move downstream, because that is where the value, and of course the profits lie.

By contrast with restructuring moves in the past, concentration on core competencies involves selection among *activities*, corporate functions, not *products*. Instead of dropping some products and concentrating resources on making others, many traditional manufacturing companies have abandoned manufacturing itself as a corporate function. They have given up (or contracted out) the physical processing activity, sold their physical assets, and decided to specialize in intangibles such as strategic management, research and development, marketing and so on.

The opposite side of the coin has been the spectacular expansion of turnover and business muscle by contract manufacturers. The best-known contract manufacturers, many listed in the Fortune 500, do not confine themselves to manufacturing activities. On the contrary, their success lies in providing all the product-related services, so that the integration of manufacturing and service provision has had a twin effects on corporate boundaries, narrowing and at the

[1] In the new business-model sense of the 'new economy', of which there are several definitions. See Szalavetz (2000).

[2] Exceptions include Marceau–Martinez (2002); Tomlinson (2000)

same time broadening the activity portfolio. On the one hand, firms try to narrow their activities and concentrate on core competencies, while on the other, increasing numbers diversify into product and process-related services to increase their value added.

These, in principle mutually exclusive tendencies have manifested themselves in the emergence of global production networks (GPNs), embracing both equity and non-equity relations, as documented by Ernst and Kim (2002). The flagships or system integrators of the GPNs have tended to narrow their activities. In most cases, they have given up manufacturing and concentrated on various internal services, while providing strategic and organizational leadership to the network.

Companies in the second layer of the hierarchy – regional headquarters or product-division leaders – have tended to broaden their activities. Some may have abandoned part of their manufacturing, retaining only the technologically more demanding parts, while diversifying considerably the range of their internal service provision,[3] by providing services to the parent company and to companies on the third level of the hierarchy: specialized suppliers.[4] The last, at the bottom of the hierarchy, joined the production network as monofunctional, production entities, but they too have been striving to improve their network positions and diversify their activities by taking on production-related internal services, and in the case of local market-oriented investment, product-related external services.

The spread of GPNs has had twin effects on the structure of international trade. (i) The volume of internationally traded services has increased spectacularly, as has the proportion of total trade that is network related. (ii) The volume of intra-firm trade in services has increased considerably, which presents a number of methodological difficulties with quantifying and documenting in international trade statistics.

The increase in the volume of internationally traded services is statistically well-documented. According to the OECD, the value of the service exports of 30 OECD countries in 1999 was USD 1097.3 billion,[5] which meant there had been 3.2 per cent annual growth since 1995.

International trade statistics provide only indirect evidence that the importance of intra-firm services is increasing. For instance, although the volume of internationally traded services keeps increasing, the ratio of internationally traded services to total trade has remained fairly constant over the past few years: an average of 21 per cent (OECD 2001, pp. 30–31). This calls for an explanation, because the share of services in total value added has been increasing, to an average share of 70 per cent in OECD countries.[6]

The explanation OECD offers (OECD (2001)) is in line with Cowan et al.'s (2001) reasoning: OECD traces the stagnation of the share of internationally traded services back to the fact that service providers are located near their potential customers and therefore a large share of services is not traded internationally.

However, there is reason to believe that the increase of intra-firm services and the ambiguity with which this increase is documented in international trade statistics provide additional explanation.

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[3] Second-layer companies also provide a complex range of external services, of course.

[4] The three layers described can be further refined, of course, to distinguish higher-tier and lower-tier suppliers. However, the simplification is possible here as the issue is the pattern of narrowing or broadening the corporate activity range.

[5] Goods exports, on the other hand, stood at USD 4100 billion (OECD 2001, p. 30).

[6] The world average is rather lower, but not less than 60 per cent (Freund and Weinhold, 2002). Some figures for service shares of GDP in 2000: Belgium: 70.9 per cent; Denmark: 70.2; Finland: 62.1; France: 70.9; Germany: 67.3; Britain: 70.1; Hungary: 61.4; Ireland: 55; Japan: 66.6; Netherlands: 70.1; Spain: 66.0; USA (1999): 73.9. ('OECD in Figures'. *OECD Observer 2002*. Supplement 1. Paris: OECD.)

With the tertiarization of manufacturing and the emergence of GPNs an increasing share of the intangible determinants of value is produced in the form of internal, intra-firm services.

Although subsidiaries usually pay for the services granted by their parent companies, the costs of these services are listed under the item of other costs, which item includes the costs of services bought from non-affiliated services providers as well. Although OECD statistics contain an item that quantify the service transactions among affiliated companies, this is a residual item containing management services, overhead costs and 'other services' not elsewhere classified. This means that an increasing share of service transactions between affiliated parties remains undocumented.

Another methodological difficulty arises from the fact of transfer pricing, from the fact that the fee of internal services rarely corresponds to the fee of similar services bought from non-affiliated service providers. This fee can exceed the market price of the service, but it can also be inferior to it, for strategic reasons. One of the best examples of this latter type of distortion is the system of internal financial pools, which offers subsidiaries investment financing at a cheaper interest rate than the one of commercial loans. Each multinational devises its own system of pricing internal services. These, like some other firm-specific organizational decisions, greatly influence corporate competitiveness.[7]

There appears to be a growing gap between the real volume of international trade in services and the one recorded in official trade statistics. Our hypothesis is that the increase in this gap correlates strongly with the *evolving complexity of integration between services and manufacturing*. The more integrated the two sectors become, the more difficult it is to quantify either the contribution of services – as 'intrinsically different sectors of the economy' – to national value added, or their share in total trade.[8]

3) Tertiarization of manufacturing in Hungary: field-survey findings

Field investigations were carried out at a sample of ten companies in Hungary, all subsidiaries of large, blue-chip multinationals in the engineering industry. The survey was intended to find out more about the patterns of functional diversification in local manufacturing subsidiaries. Semi-structured interviews were made with members of top management in the sample companies.[9] Because of the explorative nature of the research, the sample was not selected at random, but according to selection criteria of size, ownership, owner's integration strategy, and sectoral affiliation. (It was assumed that the type of service activities companies undertook would be industry-specific. The sample was therefore limited to one industry, engineering.) The main selection criterion was that the subsidiaries

[7] IBM, for example, uses a shared-resources concept. The expenses of internal services are shared by all company segments, while allocation of expenses is based on the head counts of segments (*IBM Annual Report*, 2000, p. 42: ftp://ftp.software.ibm.com/annualreport/2000/pdf/IBM2000F.PDF)

[8] The author's hypothesis is supported by calculations from Tomlinson (1999). Drawing on the OECD Input-Output Database (share of intermediate flows of services as a percentage of the total), Tomlinson compares four countries and finds that integration between manufacturing and services is greatest in Germany. This is interesting also because it is based on international comparisons of sectoral contributions to national value added, in which some analysts see Germany as a service laggard. (See Note 6.)

[9] Alstom Power Hungária Ltd (ABB subsidiary ABB Power Generation Ltd became an Alstom company in 2000, after a 1999 merger of the turbine businesses of Asea Brown Boveri and Alstom into the Brussels-based joint venture ABB Alstom Power, a Brussels-based), Audi Hungária Motor Ltd., Bosch Rexroth Ltd, Flextronics International Ltd, GE Hungary PLC, Knorr Bremse Braking Systems Ltd, Nokia Hungary Communications Ltd, Schneider Electric Hungária Electric PLC, Siemens PLC, and Temic Hungary Ltd.

should exemplify the various possible integration strategies.

It was also assumed that the scope for local subsidiaries to diversify their activities and engage in service provision alongside manufacturing was greatly influenced by the integration strategies of their parent companies. If a multinational owner adopts a global strategy, the scope left for local subsidiaries to diversify their corporate functions will be much more limited than it is in the case of a multi-domestic strategy.[10] Local subsidiaries integrated in the multinational organization with a multi-domestic strategy usually offer various external and internal services. These companies are domestic market oriented. They co-operate with their domestic customers, according to their specifications, offer various after-sale services etc.

One of the objectives of our in-depth interviews was to investigate the characteristics and the evolution of the relation between manufacturing and service activities within the individual companies in the sample.

We had two preliminary working hypotheses.

The first one was that manufacturing and service activities are closely related to each other. The diversification towards a more complex package of activities, or corporate functions is the result of a corporate evolution process. The owners recognize the local talent, the fact that local subsidiaries are capable (possibly as a result of a corporate competence accumulation process) to assume corporate functions other (and more knowledge-intensive) than production as well.

The second working hypothesis was that the profitability of local subsidiaries that assume a complex range of corporate functions exceeds the one of single-functional subsidiaries.

[10] See Martin (1998) about the multinationals' integration strategies.

The results of our field investigations made us reject or at least modify both of our preliminary hypotheses. Whereas in the case of the first hypothesis, about the close relation between physical processing and service activities, reality turned out to be much more complex than initially supposed, in the case of the second, our assumption turned out to be completely wrong.

4) Incorporating services into manufacturing: two types of activity in one?

In several companies in the sample, both manufacturing and service provision were found, although the two types of activity had little or no relation to each other. Diversified multinational investors had created 'local empires', establishing manufacturing subsidiaries and service subsidiaries that operated under the same umbrella. There were software companies, consultancy firms, banks etc. alongside their manufacturing subsidiaries.

Another pattern of integration of unrelated manufacturing and service activities was found in companies that had R&D centres alongside their manufacturing facilities, but the former were isolated from the latter, since the R&D formed part of the global R&D of the group. In other cases, of course, the product development related to the products manufactured on site. As a rule of the thumb, it was found that the closer a subsidiary's R&D stood to basic research, the more likely it was to be unrelated to the local manufacturing. Conversely, the closer it was to adaptive development, the more likely it became that it was related to local manufacturing.

In one company in the sample, even the local sales activity was unrelated to the local manufacturing! It operated in a customs-free area, manufacturing products that were exported and distributed through

the owner's global distribution chain. On the other hand, the owner had local sales offices for imported products. The imported and locally manufactured products and the exported products were identical, but the ones manufactured in Hungary were exported because of the customs free zone, while the ones distributed in Hungary then had to be imported.

Although the interviews shed light on the multiplicity of relations between manufacturing and service provision, it was found in several firms that the incorporation of services had not followed the evolutionary path predicted in the initial hypothesis.

One basic terms in the international management literature on subsidiary evolution is world product mandate (Birkinshaw 1996; Birkinshaw-Hood 1998), which means the subsidiary has gained comprehensive responsibility for a specific product or group of products as a result of an evolution process. Under a system of world product mandates, the corporate functions associated with its specific product are assigned to the subsidiary as well, so that its responsibility is total both functionally[11] and geographically.

The interviews revealed that each local subsidiary in the sample was trying to initiate such a path of evolution, but only one of them had managed to acquire a world-product mandate so far.[12] Local subsidiaries managed to acquire responsibility for a couple of corporate functions, but in most cases, a regional, rather than a world product mandate was the realistic long-term objective of their evolution. Some subsidiaries had become regional headquarters over time, or at least managed to become regional competence centres for specific corporate functions.[13] Regional competence centres assume responsibility for specific corporate functions at a regional level: sales, distribution, logistics, training etc. Regional headquarters have a nodal position in the knowledge network of their multinational owners, transferring knowledge and technology at a regional level to less developed regional subsidiaries.

In some cases, the process of becoming a regional competence centre coincides with divestment of certain low value-added manufacturing operations. Local subsidiaries assume responsibility for management of the relocation process and for launching production at the new location. They provide technological assistance and consultancy services on a variety of functional issues (logistics, quality control, etc.) In effect, subsidiaries that lose a certain type of production activity diversify into service provision while managing the process of relocating the production. (And in the majority of the cases, they continue to carry out production activity, of a more technology and knowledge-intensive nature.)

This optimum scenario applies only if the new location is geographically close to the one where the divestment takes place, and not, say, in a Far Eastern country. Several multinationals that have decided recently to relocate production in Central Europe, due to increasing local factor costs, have preferred South-East Asia over neighbouring Eastern European countries. Most multinational investors do not seem to view less advanced Eastern European countries as safe, developed or predictable enough for locating production facilities. It needs reiterating, therefore, that the level of development in Eastern neighbouring countries is

[11] Responsibility will include design and development of the product throughout its life cycle, elaboration of process technology, manufacturing, and provision of production and product-related services.

[12] The Hungarian subsidiary of GE was carrying out and managing the global R&D for the group's lighting division. The chief finance manager and CEO of the division had moved to Hungary from London. Also located in Hungary were various corporate functions such as purchasing, marketing and control, at least up to EU level. They were being carried out by global teams belonging to the corporation.

[13] It is important to differentiate between regional headquarters and a regional competence centre. The regional headquarters is what a local subsidiary may become if it has gained regional competence in most corporate functions.

crucial to Hungary's chances of becoming a regional competence centre.

There is a third option besides those of acquiring a world product mandate by integrating all production related service activities or becoming a regional competence centre, and that is to acquire a comprehensive local product mandate. Integration of manufacturing and services at the local subsidiaries of some brand leaders has taken place under the auspices of services, not manufacturing. Many firms that were originally manufacturers now label themselves 'solution providers'. Their core competence or main business segment, they claim, has become to provide strategic business services and comprehensive solutions to customers' problems and needs.

This shift in corporate focus followed a realization by many companies. Responsibility for providing a solution and carrying out a complex project (say the safety system of a ministry, the logistics systems of a manufacturer, an IT or communications system, or a lighting and technical system for a new theatre) is not generally awarded to the best hardware provider. The tender is won usually by the firm whose solution coincides best with the customer's ideas. The competition no longer takes place over manufacturing the hardware, whose parameters are not considered decisive, because the various hardware elements in the system are in principle interchangeable. What matters is the creativity and of course the price of the solution, so that the competition is concentrated on the services. The winner of the project then tries to incorporate its own products and hardware into the system, but selection of own hardware is not automatic, not the only option, or necessarily the best strategic solution. In providing solutions, the integration of manufacturing and services is coordinated by the service provider, not the manufacturer.

Local subsidiaries of such manufacturing firms were usually created as market-seeking investments. One important finding of the survey was that these subsidiaries have the greatest chance of diversifying their corporate function portfolio, engaging in knowledge-intensive strategic business services outside manufacturing, and providing the most comprehensive range of high local value-adding services to local clients.

5) Diversification into services and its effect on profitability

Another issue the field investigations explored was whether manufacturing subsidiaries that diversify into service provision find that more profitable than simple manufacturing.

The point of departure was the fact that local subsidiaries usually pay their parent companies for every kind of 'assistance', i.e. internal service provision. The fee for an IT specialist employed and sent by the parent company is usually much higher than that of a local IT expert. If local subsidiaries can themselves provide the services necessary for their operation, they can economize on costs. This line of reasoning is supported by anecdotal evidence, but the managers interviewed pointed out that this in itself does not increase the bottom-line value of their subsidiaries.

Some subsidiaries have established R&D centres and hired engineers to participate in the multinational owner's R&D activities. The costs of such local R&D centres (hiring engineers, investments in computers, testing equipment, etc.) are included in the subsidiary's annual budget. The owner covers such investment costs either directly, through a direct transfer, or indirectly, by permitting the subsidiary to spend locally accumulated profits on such objectives. This means that local R&D activity has not affected the subsidiary's profitability, as the costs have been covered by the owner. If local R&D activity corresponds to the products manufactured on site or is related to the production process at the subsidiary's premises, the subsidiary has the responsi-

bility for financing it. *The revenue of a local subsidiary derives from the contracted 'unit production price' of its individual products.* Unit production price is multiplied by the number of units produced to give net sales. In principle, the contracted unit production price may be somewhat higher if the subsidiary's activity covers a wider range of functions. However, owners usually make their subsidiaries compete with each other, and even with potential outside contractors for the responsibility of producing each new product, unit production price cannot exceed a specified threshold irrespective of how comprehensive the local activity portfolio has been. The situation is similar with other locally performed internal services (procurement of materials, logistics, marketing, sales, *etc.*)

However, subsidiaries strive to assume responsibility for further manufacturing-related services, even though diversifying the range of these provided locally does not affect the profitability of their operations. The reason behind such 'subsidiary entrepreneurship' (Birkinshaw (2000) is that it tends to improve their status within the multinational organization, so that they become more embedded locally. If a local subsidiary is assigned crucial corporate functions, it becomes more important to the multinational owner than it would be if it only increased its local market share. An increase in local market share is always a marginal item in a multinational's consolidated bottom line, and in principle, local market distribution can be arranged from a foreign base as well. Undertaking responsibility for specific global or regional corporate functions requires a knowledge base whose retention within the multinational organization is crucially important to its owner.

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