Product Differentiation Costs and Global Competition

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Abstract

The growing competitive intensity on the markets determines the emergence of competition costs that are expressed at a corporate level and have implicit repercussions for the supply system. This type of costs makes it possible to identify a close link between competition costs and supply differentiation costs.

Classification by competitive intensity presupposes that the analysis performed identifies the classification of company costs as the discriminating element, in terms of the competitive pressure of the context in which the firm operates.

The emergence of competition costs is linked to an attempt to squeeze them as an aspect of vertical, or more specifically, horizontal cooperation strategies.

Keywords: Product Differentiation; Differentiation Costs; Over-Supply; Global Competition; Marketing; Market-Driven Management; Global Corporations; Global Markets

1. Product Differentiation and Corporate Costs

Differentiation is the end result of activities undertaken by a business to qualify its products with peculiar elements that can be perceived as such by consumers and may regard tangible product characteristics (for example, the materials they are made of) or intangible elements such as warranty, after-sales services, etc.. The customer may value the courtesy of front line personnel, their willingness and competence, or the simplicity of making an order or collecting information considered useful to make a decision.

The modular approach to production is particularly in keeping with an understanding of product differentiation costs, because it refers to manufacturing systems in which the product is divided into modules (parts) and assembled by interfaces that are common to the modules that make up the end product. The possibility of working in modules is an important opportunity for the business: the module may be managed as a separate ‘product’ – albeit the fruit of a manufacturing process that is not completely autonomous. So, each module follows

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logics of research and development, engineering and manufacturing optimisation, which integrate with the others but appear more efficient when they are ‘devised’ as part of an approach that aims to differentiate the product. When it breaks the product down into modules to be assembled, a company tends to identify two families of components for each product: the common parts and the special parts. The former are the various modules that are used on several products for which they often constitute the ‘core’. With this approach, the common parts are not differentiating elements, because they are used on different product lines, and they do not enable the purchaser to perceive the difference between the products on which they are used (take, for example, a chassis, axle or engine that is mounted on several car models, and even marketed by different brands; or a cab, used on several ranges of agricultural machinery; or again, an active principle that goes into different medicines).

However, the expression ‘common parts’ can be used in several contexts:
- a straightforward common part: the part or sum of parts that a general supplier supplies to several businesses, even competitors (to give an example, tyres that equip different competitive car models). However we can consider the general characteristics of the supply: when it becomes not a general supply but a specific supply (for example, a particular type of tyres on a specific car model), then the goal is to characterise and qualify this specific product with elements that can differentiate it from those of the competition;
- a common part may be a part or sum of parts designed and/or generated in cooperation with one or more business partners, with which a collaborative relationship is established only for the specific activities that are the subject of the alliance. We should note that even in this instance there are limitations: in most cases, the parts in question are classified as common to specific product lines and, above all, to the businesses in the cooperative relationship. However we must underline that although classified as common parts for the businesses in question, they are often special parts, tending to differentiate the products of the group of businesses that have developed them. They could be innovative and therefore differentiating elements, which were researched jointly, while the development is managed autonomously by the cooperating organisations; or they may be parts that are already familiar to the market for which they intend to develop common manufacturing economies;
- and finally, a common part may be a part that is used by a single business for several of its own products (for example product ranges marketed under separate brands), for which it has identified a different market position.

Special parts are the sum of elements that can characterise the product and can constitute a tangible basis for differentiation if they are perceived by the customer.

We underline that the special nature of the parts mentioned does not always represent an element that differentiates the product, if demand is not in a position to perceive the differentiation when the business has invested to this end.
On the other hand, the cost of differentiation (of a product or, more generally, of supply), emerges from the management of the supply system and its importance varies according to the market forms in which it is deployed.

Analysis of differentiation costs can focus on determinants other than the market form; for example the contextual competitive intensity, or the intensity of relations between competitors in a particular space. Growing competitive intensity forces the business to intensify its efforts to differentiate, in order to sustain the competitive confrontation.

In this sense, product differentiation costs would be specifically operational and need the recognition and subsequently the appreciation by the customer or purchaser of the effort made to differentiate: the company conducts detailed analyses of its customers, their propensities and the needs they want to meet so as to differentiate the product successfully, qualifying its products with perceptible elements of individuality that have value for the target it addresses.

The growing competitive intensity on the markets determines the emergence of a type of transverse cost, unlike traditional cost classification: competition costs that are expressed at a corporate level and have implicit repercussions for the supply system. They therefore justify the search for cooperative managerial solutions (to create networks) that can strengthen the business. This type of classification makes it possible to identify a close link between competition costs and supply differentiation costs. Classification by competitive intensity presupposes that the analysis performed identifies the classification of company costs as the discriminating element, in terms of the competitive pressure of the context in which the business operates. In fact, the emergence of competition costs is linked to an attempt to squeeze them as an aspect of vertical, or more specifically, horizontal cooperation strategies.

We can therefore consider that competition costs refer to a strategic type of analysis, designed to sustain the business in the competitive framework; acting at a corporate level, they can relate directly to the competitive intensity of the context, thus expressing a ‘corporate’ differentiation (Table 1).

In our analysis, we intend to illustrate the relationship between the differentiation of supply, market forms and competitive intensity, highlighting in particular the repercussions that a differentiation strategy can have for company costs and, therefore, for the chain of value.

2. Differentiation Costs in Over-Supplied Economies

Competition is particularly intense in over-supplied economies; competition tends to develop between different product classes, which perform the same function in the context of complex needs. Supply is distinctly superior to demand, in quantitative and qualitative terms.

Numerous markets are in a state of over-supply today, dominated by global development logics; often, many of the products in question have reached maturity. However, it is possible to come up against the typical conditions of over-supplied economies even in immature sectors, particularly those resulting from the elimination of the borders between states and related to the development of
communications – we only have to think of the spread of the Internet and, in parallel, the emergence of electronic commerce, which oversteps the concept of ‘physical space’.

Table 1: Differentiation in Different Competitive Contexts

<table>
<thead>
<tr>
<th>Competitive intensity</th>
<th>OVER-SUPPLY</th>
<th>UNSTABLE BALANCE</th>
<th>SCARCITY OF SUPPLY</th>
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</thead>
<tbody>
<tr>
<td>Market form</td>
<td></td>
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<tr>
<td>MONOPOLY</td>
<td>-</td>
<td>-</td>
<td>Unique elements of supply</td>
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<tr>
<td>MONOPOLISTIC COMPETITION</td>
<td>High corporate and supply differentiation</td>
<td>High supply differentiation</td>
<td>Minimal elements of supply differentiation</td>
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<tr>
<td>OLIGOPOLY</td>
<td>High corporate and supply differentiation</td>
<td>High supply differentiation</td>
<td>-</td>
</tr>
<tr>
<td>PERFECT COMPETITION</td>
<td>Differentiation: - High corporate - Limited for supply</td>
<td>Limited supply and corporate differentiation</td>
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*Time* and *space* play an almost dichotomous role in over-supplied economies, becoming significant variables for the company because they are managed for competitive purposes, to protect or maintain a company’s position on the market.

The product is developed as a system (of tangible and intangible elements) of supply, in which tangible factors are only one aspect of supply and not necessarily the one with the most value for the customer. The supply system includes the product itself, pre-sales services (Freephone number, consultancy, quotes, etc.) and after-sales services, warranties, delivery and credit services, packaging and, obviously the brand.

If we consider food products: competitive products that are completely different from each other usually coexist on the same shelf, because they cater for the needs of very dissimilar customers. Products from large companies with strong, popular brands (usually perceived as a guarantee of quality, the value of which is reflected in high prices, only temporarily reduced by promotional offers) compete on the shelf with ‘private label’ products under the retailer’s brand (once considered low quality, low cost products whereas today they have been significantly reassessed), and niche products (for example organic foods). In some areas, typical products from small and medium sized, very local producers compete on the same shelf with similar products produced by large corporations that are often foreign.

The above would seem to suggest that a product’s tangible components are marginal; on the contrary, the tangible product continues to be central. Having received a strong incentive from the use of automation, a further stimulus to product improvement comes when a company introduces the concept of lean production – and, by reflection, the principles of just-in-time and quality control (jidoka) that underpin it. The concept of lean production then extends to the company as a whole, triggering the emergence of a ‘new organisational-managerial
model, diametrically opposed to the Ford model of mass production\textsuperscript{10}, in which an effort is made to reconcile the needs for extreme variability expressed by the market with those of efficiency, effectiveness and economy (typical of manufacturing standardisation) on the part of the company. With modular production, the parts produced are identical in every module and only differ for a very few, apparently marginal, elements; at the assembly stage, a different mix of components generates products that are actually different and perceived as such by demand\textsuperscript{11}.

Where complex, structural supply systems exist, demand is extremely changeable and dynamic: on one hand products have strong intangible connotations, that differentiate and qualify supply, while demand can become unpredictable, disloyal, linked to complex needs and increasingly dominated by global and personal logics of action. On these markets, the segmentation of demand has a limited value for the company – because it presupposes stable behaviour and tastes, while the concept of demand bubbles\textsuperscript{12} emerges, identifying the temporary aggregation of purchasers as the key to overcome the limits of segmentation (focusing on a ‘disaggregation’ logic).

Economies dominated by over-supply are characterised by the simultaneous presence of different types of companies (local, international, joint ventures, etc.), which compete on markets with very dissimilar structures. The target context is dominated by globalisation and businesses are increasingly on the lookout for strategic operating partners with whom to establish dynamic relations (even not long-term) to share activities of varying degrees of importance\textsuperscript{13}. The development of these relations reflects the effort made to tackle competitive intensity, which identifies shared activities as a very significant means of reducing competition costs.

However, the decision to cooperate with other businesses is not only a characteristic of over-supplied markets, and there is widespread recourse to this strategy by businesses operating in stable markets, in which we find joint ventures, investments in the share capital of other companies, and agreements (generally short-term).

The relations developed by companies in stable economies tend to become ‘rooted’, developing stably with the market, generally for long periods of time and in particular with businesses upstream or downstream of the chain of value (vertical relations). On the other hand, in strongly unstable global economies, developing relationships allows a company to ‘lighten’ its structure and to respond better to market dynamics. For this reason, relations with upstream and downstream partners are reinforced on highly competitive markets, but relations forged with competitors based on shared research and development, procurement, manufacturing or distribution agreements (horizontal agreements) also emerge.

In particular, shared manufacturing activities tend to favour the logic of modular production, breaking supply down into common and special parts and modules (the latter tending to be managed autonomously). Firms therefore have to operate with a complexity that is certainly burdensome: on stable markets, the development of the activity regards a single company, which benefits from the economies pursuable during their realisation, and possesses knowledge about the product and the process. In a state of over-supply, the company boundaries merge, because they are
forced to open up partially to competitive companies that similarly become vulnerable in relation to their partners\(^\text{14}\).

The manufacturing process is partially shared; often only the manufacture of certain parts is performed jointly, but there are cases – several in fact – of shared systems and structures that assemble finished products that will compete against each other on the market\(^\text{15}\); assembly permits and encourages the specification of the product, which is then completed with common parts and special parts, designed to differentiate output. The diagram proposed below (Figure 1) illustrates the case of three businesses that share part production and assembly, and then market the results of the shared processes separately.

The tendency to cooperate on the part of businesses in economies where competition is fierce can be explained by the need to squeeze overall corporate costs, in order to deploy product differentiation, limiting its effects on the selling price.

However, in intensely competitive economies, a company’s capacity for survival on the market is closely linked to its ability to squeeze differentiation costs both at corporate level (so-called competition costs) and at product level: the latter, in particular, are not expressed by continuous, substantial product changes, but also by the respect and maintenance of its ‘tradition’ (which entails striving for innovation in other elements of the supply system), something that does not preclude continuous changes (to tangible or intangible product characteristics), or the variety and customisation of supply.

In particular, the supply differentiation cost is an extremely significant component in fiercely competitive market, often constituting the most consistent part of the product cost. In spite of this, the need to arrive on the market before the competition in order to maintain a position of competitive advantage as long as possible (first, thanks to the innovation introduced, then, by cost leadership) supports the significance of the time factor and, consequently, of competition that identifies an important managerial variable\(^\text{16}\).

The sharing of manufacturing activities is certainly taking a strong hold\(^\text{17}\) as a way to squeeze the differentiation costs of tangible product components. To bring out a product’s potential fully, diversifying it – potentially – in relation to numerous possible types of customisation, requires automated manufacturing technologies and systems on one hand, and the reorganisation of manufacturing along the lines of lean production on the other, in order to sustain the costs of a tendency to mass customisation of the product. Activities developed autonomously take place alongside shared activities: if it is possible to work in modules, sharing manufacturing costs with external partners, it also becomes possible to accumulate economies of scale and of experience, reducing times, to the benefit of cooperating businesses and, likewise, to the detriment of competitors that do not adopt similar strategies.
On the other hand, services correlated to supply intensify and put down roots, no longer being purely ‘accessory’ services. And because they are part of the supply, they must be differentiated to some extent, albeit with a different intensity than a physical product: for example, differentiation may only regard their low cost or the fact they are free of charge. Even when trying to minimise these differentiation costs, it is possible to share activities, for example by identifying common solutions that make it possible to maximise the efficiency of the services, or by jointly managing service centres, which can replace the defective or damaged parts of cooperating competitors’ products, thus maximising the use and the efficiency of the service point; by saturating its capacity, the service cost can be optimised for the partners involved.

The second motivation that encourages joint activities with specific competitors is related to the need to squeeze corporate differentiation costs (competition costs), the importance of which is less apparent on the end market.

An initial comment might be that the categories of corporate differentiation costs (competition costs) and product differentiation costs may appear to coincide in some way, but this does not justify separate treatment of the two categories. However, although closely related, certain substantial differences remain.

The strong competitive pressure typical of over-supplied economies determines a corporate structure in which the different functions acquire peculiar characteristics:

- research and development receive a strong impulse, in certain sectors (for example pharmaceuticals), research is an extremely important component of product cost and businesses therefore look for possibilities for sharing with external partners. Very often the product is developed and marketed separately and in distinct geographical areas. Development activities are often kept separate from research, and are best developed autonomously;
- purchasing activities become increasingly complex, but there is a tendency not to consolidate the external relations established, particularly when they are vertical, in particular for supplies of generic materials, in favour of short-term relations, at the end of which the parties leave each other free to assess the different and potentially better offers available on the market. But subcontracting of specific parts and components tends to become rooted and
developed with time, making the companies involved a part of the company network;

- as we mentioned above, manufacturing becomes extremely complex, the effect of the intense research and development activities undertaken to find solutions that differentiate products at a lower cost. The imperatives of a rapid time to market, variety and flexibility, and product customisation, also oblige the company to adopt highly automated and carefully structured manufacturing systems. The cost for the company of the maintenance and continuous updating of the systems is not justified by a product that has a very short life cycle, is partly unsellable and is sold at a constantly falling price. The cooperative solution, of identifying companies as partners with which to develop manufacturing activities, keeping management of upstream and downstream activities separate, thus becomes a precious ally, because it makes it possible to reach the general market objectives without weighing the structure down with continuous large investments;

- marketing activities break down into trade marketing activities and consumer marketing activities, according to their target, underlining the growing importance of retail and the central role of the end customer. In the case of mass consumer goods, the investments earmarked to this activity are particularly large.

In over-supplied economies, competition costs can be a problem; on many markets they emerge as a reaction to the opening of the frontiers by protectionist Governments which, in controlled competition economies, meet much of the burden of the cost of a lack of competition. When the barriers fall, local economies are threatened by the entry of external competitors, whose presence causes competition costs to rise. In the light of this increase, the company is induced to identify the best solutions to squeeze emerging costs; horizontal cooperative relations start to emerge, alongside other solutions (reengineering of the corporate structure, and development of vertical cooperation). The development of ‘functioning’ partnerships helps to lower the cost of competition, and this is clearly reflected (directly in the case of manufacturing and marketing partnerships, indirectly for research, development and supply partnerships) in reduced product differentiation costs.

Competition costs therefore differ from non-competition costs, which stand out clearly in relation to new the alliance. The decision to open up the corporate boundaries to external partners actually obliges the company to sustain costs that may be expressed in monetary or non-monetary terms – because they implicitly affect the company.

Monetary non-competition costs can be identified in investments related to sustaining a cooperative relationship, and therefore to the need to adapt structures (for research or manufacturing\textsuperscript{19}, etc.) and to the diseconomies that are produced as an effect of the gap between different organisational cultures. The development of cooperative relations may make it necessary for the partners in the relationship to sustain initial diseconomies\textsuperscript{20}, but these are usually exhausted in the short term and justified by the subsequent accumulation of greater economies. However, the cost of terminating a cooperative relationship is also a monetary cost of the absence of
competition and may consist in having to pay compensation to one’s partner if the contract is rescinded, and having to undertake divestments.

On the other hand, non-monetary non-competition costs are linked to the riskiness of the relationship caused by the fact that the company must partially open up its corporate boundaries to its partners. If we view the mutually competitive nature of the organisations involved, there is clearly a ‘risk’ of the competitive exploitation of any information gathered about the competition. As we have already underlined, there are two main considerations that support and increase the riskiness of the relationship:

- partners may cooperate on one market and still compete on others (i.e., they may operate on markets dominated by different market forms), or cooperate on specific activities or particular product lines and not on others;
- above all in conditions of over-supply, the dynamism of the environment is reflected in the dynamism and flexibility of the partnerships established there. The company is therefore prepared to invest in relationships that may have a long life but may also be extremely short-lived.

What is more, an incorrect assessment of a partner’s compatibility can result in diseconomies which, when not exhausted, can prevent the continuation of economic relations. This is expressed as a monetary cost (for the investments sustained and diseconomies realised) and as a non-monetary cost, which is equally decisive for the company’s very survival, and for its position on the market. In a market dominated by time-based competition, ‘wasting time’ on activities that do not produce economies (reduction of competition costs and differentiation costs) implies the erosion of the company’s competitive edge.

As a whole, in economies dominated by structural over-supply, all differentiation costs are important components with respect to the supply system proposed, and attempts to optimise it go hand in hand with the growing use of forms of shared competition, which aim to reduce the competitive pressure on the individual companies in the partnership (corporate differentiation costs), so as to structure a system that is as unique as possible, and therefore actually stronger in relation to the market (supply differentiation costs).

### 3. Differentiation Costs in Scarcity Economies

In scarcity economies there is a structural excess of demand over supply, and in these economies, purchasing decisions develop in the context of the same type of use, but in different product classes.

Unsatisfied demand is an important part of the market; total output will therefore be placed very rapidly (thus achieving equality between output and sales). A similar balance of power compared to the market also makes it uneconomical to conduct specific research and studies (for example, to identify segments to be satisfied with specific offers) into demand with generic needs: when demand is not faced with alternatives belonging to the same product class, purchasing decisions and exploitation are defined by the very nature of the market which does not permit competitive comparisons with similar offers.
The first examples of scarcity economies can be found in the early 20th century automobile market, when artisan craftwork gave way to mass production (take the case of the Ford Model T, the only model built and sold by the company with no possibility of customisation to the purchaser’s specific needs\(^{21}\)).

On today’s markets, with characteristics that are partly dissimilar to those of the early 20th century motor industry, we can find the typical conditions of scarcity economies in the energy sector, particularly petrol, where the issue of manufacturers’ control of market conditions is all the more evident if we consider that they are in fact able to influence both upstream activities and the energy distribution system (which often belongs to them).

In scarcity economies, the structure of corporate costs is concentrated in particular on core running costs and, above all on procurement, manufacturing and distribution costs.

Procurement costs\(^{22}\) relate to an activity, purchasing, that is extremely critical in these markets and whose importance is justified by a real scarcity of sources (the case of energy sources and deposits that are running out), and by the control exercised on available sources by a small number of companies (the case of the oil industry today).

Manufacturing costs can only emerge from an analysis of the existing manufacturing systems, first of all, but they are also and often triggered by considerations regarding the qualitative and quantitative characteristics of the raw materials used in the conversion process.

And finally, distribution costs arise for the preparation and management of a distribution system that is maintained under the company’s control (we underline that distribution is generally passive, not conducted independently, but strictly controlled by supply).

The importance of core running costs is reflected in the determination of the price, which is done with a prevailing internal orientation, in proportion to the power of supply with respect to the other forces present on the market (primarily demand and competition).

Costs are defined on the basis of the quantity produced, which is limited by:
- constraints in terms of manufacturing capacity and/or raw materials;
- ‘self-imposed’ limitations to maintain power over demand, obtained by controlling the sources of supply and the distribution system.

The link between price and quality is defined by a linear function in which quantity – limited by the sources, the manufacturing systems and the manufacturer’s will – is an independent variable, which is linked to the price, a variable that depends on the output.

Scarcity economies are characterised by competition that develops around the same function, but between different classes of product: demand is a long way from saturation level and the competitive intensity seems limited; competitors are few in number in a limited territory, and relations between them are few and far between.

A market in which there are no real purchasing alternatives and where demand choices are between products that belong to different product commodity classes, immediately makes the elements that qualify (and therefore, differentiate) the
available alternatives evident to the customer. These elements characterise not so much the product as the generic class that the product belongs to.

In a context in which the scarcity of supply is determined by a real scarcity of sources, supply tends to undervalue the issue of product differentiation, thus limiting dedicated investment in this sense.

However, the scarcity of supply may also be generated by the company itself which, with its ability to create and therefore offer innovation, may offer consumers a product that is unique and different (not simply differentiated) from those already present on the market.

The monopoly of (product) innovation represents a market structure in which the company, which controls manufacture and retail, acquires a dominant position in relation to demand, on the strength of the unique character of its own supply. In spite of this, the effort (and therefore the resulting costs) put into research and development is decisive, because it is fundamental for the preparation of a unique offer for the customer. The importance of a monopoly on product innovation emerges in the two distinct moments of the introduction and maintenance of the innovation that one intends to market.

In the process of introducing product innovation, research and development activity is the motor of innovation. However, taken as a whole, every core management activity absorbs corporate resources in relation to the new product: purchasing and manufacturing, to introduce the innovation identified; and distribution, to make the product available, but the contribution of internal and external communications for informative purposes is essential, as they position the product well on the market and stimulate need in the consumer.

On the other hand, the company’s success in maintaining a position of monopoly is correlated to its ability to sustain the existing differentiation. As a result, on one hand development activities create ever-new products for the customer, while on the other, research concentrates on identifying product innovations. The product is often marketed by a dedicated network (for example with selective or exclusive distribution) which plays a significant part in ensuring its success on the market.

In particular, in a monopoly of innovation, communication plays a fundamental role to:

- communicate the existence of the innovation to the market and to stimulate potential purchasers, to help them to qualify their own system of needs better;
- maintain brand and product awareness high, in the unique characteristics that differentiate the product.

The case of the monopoly of innovation therefore configures a form of scarcity of supply determined by the company’s control not over the raw materials or manufacturing processes but over product innovation itself.

What we have said above reveals that in economies where competitive intensity is weak, the importance of differentiation costs, whose aim is to underline that a company’s products are different and of greater value than alternative products, can be:
- very low, in the case of scarcity of supply determined by scarce sources of provisioning or by manufacturing processes whose potential is not fully exploited;
- very high, in the case that the scarcity of supply is linked to the presence of a market with the monopoly on innovation, which is founded in the company’s capacity to dominate innovation.

4. Differentiation Costs in Controlled Competition Economies

In controlled competition economies, relations between demand and supply are equally balanced; competitive intensity is high, and consumer choices are made with the same product class to perform the same function. The purchaser is therefore able to choose the goods or services that meet his needs best from several alternatives. In fact it is this choice that enables the purchaser to fine tune his requests and to express his ‘own’ needs, which are increasingly specific and particular.

When a company has a strong manufacturing capability, resulting in the competitive intensity that is typical of these economies, not all output can be placed immediately on the market. The company therefore needs the help of promotional actions and communication, usually advertising, to place unsold goods at different conditions or on new markets.

The market is segmented to identify homogeneous groups of purchasers: in order to satisfy as many purchaser segments as possible, the company defines multiple prices, justified by differences (perceived by consumers) in the product and the selling conditions.

Superior manufacturing capabilities allow a company to assess and choose how much to produce on the basis of hypothetical sales estimates based on defined price levels. This makes it possible to identify a link between the quantity produced and the price, in other words the price that the company intends to propose to promote the product.

On the other hand, the company deploys differentiation by developing its own brand, in order to raise awareness of a product marketed with an intangible element that is difficult to imitate, if it is sustained by commercial communication designed to increase the value of supply in the eyes of demand.

Retailing plays an active and invasive role, making company products available for demand (on the shelf) next to the alternative offers that the purchaser can choose from. The presence of a growing number of alternative products helps retailing to come to terms with its role of intermediary in relations between end demand and industrial supply, and with its negotiating power (it is organised in growing surface areas, and accounts for a growing share of the income from this channel).

A company’s sphere of action is broad, in both a geographical sense and with regard to the offer proposed (diversification and differentiation).

Product differentiation is grounded in these economies, typically characterised by an unstable balance between demand and supply and by a high competitive intensity.
□ It is possible to identify various markets in which the typical characteristics of instable balance have prevailed. We take two examples, the first typical of the 1980s, the other contemporary. In the 1980s in particular, advertising on Italian television and in supermarkets revealed a clear dichotomy between two detergents, Dash and Dixan, and other minor competitors with very limited market power. The two leaders had very similar characteristics: both were powders, in similar sized cartons, and both offered gifts inside or on the cover of the package: watches, balls, cameras, etc..

In the example given, the two products competed fiercely against each other although they already flooded the market. The purchaser who wanted to purchase a quality and well-known product (as the many advertising campaigns developed by the two companies in that period underline), would basically choose one product or the other. The purchaser’s need (to purchase a detergent that cleaned his or her clothes well and could be relied on because it was a quality product) could only be satisfied by one of these products, or by the products of its minor competitors, which were in the same product class and clearly served the same purpose.

□ The subject of the second, contemporary, example is the tobacco sector and the cigarette market. On the basis of the characteristics of the product, the need expressed by the purchaser (to take a dose of nicotine, and to enjoy the pleasure it gives) only finds satisfaction in a product belonging to that same product class. Replacement products, belonging to different product classes, cannot fully meet the needs of demand and address people who actually have other needs: not ‘to smoke’ but ‘to stop smoking’, using alternative products rather than cigarettes, like plasters, nicotine to inhale, chewing-gum, sweets, anti-stress balls and other products which, sustained by the will-power of someone who no longer intends to smoke, manage to hold off that need.

□ In both cases, the nature of the market and the type of need to be met actually limit the purchaser’s possibility of considering goods from different product classes. Competition is therefore fierce but confined to the target product class.

When it is implemented successfully, extreme product differentiation can be correlated to market forms similar to a differentiated oligopoly; on the other hand, without the elements of differentiation that qualify them, the products would compete in a non-differentiated oligopolistic market.\textsuperscript{27}

The target pursued with a strategy of differentiation of supply can be traced back to the company’s attempts to reserve a market space for itself where it would have a virtual monopoly.\textsuperscript{28}

We can distinguish roughly between two levels of differentiation of supply. One is external, i.e. with regard to the other products on the market, and the other is
internal, i.e. with regard to the company’s other output. The possibility of developing product differentiation in the context of its own product range is made possible by the use of evolved manufacturing processes, which can work flexibly (in other words, adapting in time and space to discontinuous production), but with decreasing costs.

However, it is also possible to distinguish between:

- *product* differentiation, which is defined by functional characteristics (particularly evident for investment assets or those with a high technology content) or non-functional characteristics (size, aesthetic characteristics, materials used); in other words, tangible or intangible elements;
- differentiation of the *conditions of sale* (price and conditions of payment, services linked to the product, accessories, etc.).

Through the differentiation of supply, the company intends to make the product respond better to the needs expressed (or still implicit) by the target segments or more visible and distinct from competitive products that target the same segments.

This diversity is achieved by qualifying the product with both tangible and intangible characteristics, and by adopting a multiple price strategy through which to promote the company’s product.

On one hand, in its tangible components the product acquires a controlled complexity, determined by an action designed to develop the components that are visible and therefore recognisable in their aesthetics or functionality by the purchasing client. The possibility of developing flexible production, with a modular organisation, is an important process innovation in these contexts, because it makes it possible to reduce differentiation costs, focusing them on the components (the modules) that the customer is able to recognise and appreciate. It therefore becomes fundamental to conduct careful analysis of the product components, in order to identify their nature. The essential components are those that the customer looks for in the purchasing process. They are accompanied by components in which the purchaser does not recognise a decisive function (not discriminating the choice at the time of purchase). And finally, the innovative components, which are by nature differentiating, for which the customer is often prepared to make a sacrifice in monetary terms. On the other hand, similar analysis – conducted on demand – is backed up by analysis that address the inside of the company, or the manufacturing processes, thus identifying the essential parts to guarantee the functionality of the product.

This type of analysis makes it possible to break the product down into *parts*, identifying the role and importance of each one. It therefore appears reasonable to subdivide the tangible product into *common* and *special* parts, the former constituting the ‘core’ of the product (it is often the ‘core’ of the entire product class) and the latter, on the other hand, qualifying and characterising it, differentiating it from competitive products.

Where the former are concerned, we underline that the strategic focus is concentrated on implementing economies of scale, in other words economies that can be achieved by full mastery of manufacture and processes. As a matter of fact, they are parts for which the evolution and possible improvements are mainly already achieved and concluded and leaving only limited space for improvement.
These components, which are very familiar within the economic system that they operate in (for example parts that are certainly necessary but whose realisation does not help to differentiate the product) acquire strategic relevance when corporate efforts can be concentrated on them to limit their weight on total product cost. To maximise the potential economies obtainable from these components, companies generally tend to use sub-contractors which accumulate economies of experience that are reflected in lower selling prices – by operating with an exclusive and as a specialist on the development of particular products, or working for several companies on common components. On the other hand, special parts represent the ‘specific components’ of a product, in other words, the elements that characterise and qualify it in particular – thus constituting the components that differentiate it from competitive products. We obviously cannot exclude the possibility of achieving economies in the production of special parts; however, they are crucial to a product’s success and this limits the company’s possibility of outsourcing their manufacture to sub-contractors or associated companies. It is a question of protecting differentiating knowledge, on which the accumulated competitive advantage can be maintained if and to the extent that the sharing of the same is limited and confined.

In economies with an unstable balance between demand and supply there has to be integration between tangible product components and intangible components, to implement the differentiating effect that emerges from continuous material improvements to the product. Intangible product components may be briefly identified as pre- and after-sales services, the warranty system and, most important of all, the brand policy – particularly its symbolic function (the trademark) and its importance as the sum of the values and guarantees embodied by the company.

Differentiation therefore becomes part of the corporate strategy, and is often right at the heart of it; this implies meeting costs, for this differentiation, which take two directions: for the tangible product itself, through the adoption of flexible manufacturing plant and machinery, and for the product’s intangible characteristics like the brand, colour, design, form, and so on.

However, in controlled competition economies, the competitive intensity of the context forces companies to meet various types of costs: not only product differentiation costs, but also costs to develop awareness and corporate image, and costs to develop the corporate structure, which expands and spreads across the territory, with branches and facilities that perform different functions (manufacturing, distribution, etc.). Because they are linked to the competitive intensity of the environment, these costs may be defined as competition costs and, as a matter of fact, they quantify the effort made by the company to differentiate at corporate level; but their size does not entail the search for specific actions to compress them.

Bibliography


Gneccchi F., La private label nell’‘economia d’impresa, Giappichelli, Turin, 2002.


Maggioni V., Il sistema informativo aziendale, CEDAM, Padua, 1983.


Ohno T., The Toyota Production System, Institute of Industrial Engineers, Atlanta, 1983.


Salvioni D.M. (ed.), Corporate governance e sistemi di controllo della gestione aziendale, FrancoAngeli, Milan, 2004

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Notes

1 The modular approach is usually seen as the foundation underpinning the structure of the manufacturing networks set up by numerous companies. For example, ‘modular production (...) implies the sharing and the joint development of core skills and competencies by numerous corporate organisations. Modular or agile partnerships may be for the short or the long term (...).’ See S. Gallinaro, Imprese e competitione nell’era della modularità, CEDAM, Padua, 2001, p. 56. For an analysis of the issue of modular production, we refer you, among others, to: C.Y. Baldwin and Clark K.B., Managing in an Age of Modularity, Harvard Business Review, September, October 1997; M. Calcagno, Nuove logiche di progettazione: architetture modulari e strategie multiprogetto, Finanza, Marketing Produzione, 2000; P. Zagnoli and A. Pagano, Modularization, Knowledge Management and Supply Chain Relations: the Trajectory of a European Commercial Vehicle Assembler, in Actes du GERPISA, Eighth International Colloquium, Paris, 2000.

2 The phenomenon emerges strongly in high technology sectors. Where the automotive industry is concerned, there are numerous examples of manufacturing sites managed jointly by groups of companies, in which some of the output is in common, while the rest is ‘specific’ to the companies that develop the site. In spite of this, the end customer perceives the products as completely different. Where agricultural tractors are concerned, the case of the machines produced by CNH and marketed separately under the Case and New Holland brands is particularly significant. After a series of acquisitions the group has gradually rationalised manufacturing, breaking the products down into modules. Some of these are managed in common, because they do not represent differentiating components of the product, while others make up the many specific parts that enable the customer to perceive the differences between the brands and, therefore, the lines proposed by the group. On the other hand, there are numerous examples even in other, completely different sectors: for example, pharmaceuticals, in which numerous competitors produce and market medicines with a single active principle. In this sector, because of its high cost, research is conducted jointly by two or more competitors that undertake to develop the innovation identified independently, or with other partners, marketing products that are in competition but were actually studied in the same laboratory.


4 The concept of competitive intensity refers not so much to the number of competitors in a defined physical space, but to the intensity of the relations – or interdependence – between them. ‘Competitive intensity is the degree of interdependence between competitors and regards the importance that the activities of one competitor have for the other competitors. The greater the importance for one company of information about its competitors, the greater the market’s intrinsic competitive intensity’. See M. Corniani, Sistema informativo aziendale e dinamiche competitive, Giappichelli, Turin, 2000, p. 13.

5 Over-supply intensifies the differential between demand and supply, between manufacturing, sales (unsold) and unsellable. Unsellable goods are that part of production that will never be placed on the market, even with the help of discounts and promotions. The goal of manufacturing, which is pursued with the introduction of new manufacturing paradigms like the concept of lean production, therefore becomes that of establishing a relationship with the market that can reduce or eliminate

6 ‘The over-supply of a certain product is a feature of markets at a stage of advanced maturity and characterised by quantitative saturation of demand, i.e. consumption that is no longer able to grow with respect to the quantities produced and/or imported by a given system of competitors, not even at falling prices’. See S.M. Brondoni, *Comunicazione, risorse invisibili e strategia competitiva d’impresa*, cit., p. 10.

7 The brand is the first element of differentiation, even in economies with an unstable balance (cf. § 3). We refer you to S.M. Brondoni, *Patrimonio di marca e risorse immateriali d’impresa*, Giappichelli, Turin, 2004.

8 The state of over-supply determines the importance of increasingly aggressive and powerful retailing, which does not only act as a channel, but also controls its own production and therefore the marketing of private label products, which are increasingly competitive in relation to a producer’s brand products. For a more detailed analysis of the issue, we refer you to F. Gnecchi, *La private label nell’economia d’impresa*, Giappichelli, Turin, 2002.

9 Gallinaro underlines that ‘lean production is the manufacturing system that aims to make the supply of goods and market demand coincides as much as possible, in other words to achieve dynamic stability in relations between output and consumption. (…) Lean production relies on two key principles: just-in-time manufacturing and quality control (jidoka). The term just-in-time basically means producing the type of parts that are needed, when they are needed and in the quantity needed. (…) Quality control techniques guarantee that defective parts from an upstream manufacturing stage do not reach the downstream stage, generating defective products in final assembly, i.e. products that do not meet the requirements of the clientele’. See S. Gallinaro, *La produzione nell’economia dell’impresa industriale: da funzione e scuola*, Giappichelli, Turin, 1996, p. 49 and following. For a more detailed analysis we refer you in particular to T. Ohno, *The Toyota Production System*, Institute of Industrial Engineers, Atlanta 1983; S. Shingo, *Il sistema di produzione giapponese ‘Toyota’*, Franco Angeli, Milan, 1985.

10 See S. Gallinaro, *La produzione nell’economia dell’impresa industriale: da funzione e scuola*, op. cit., p. 49

11 ‘Standardised, continuous production of parts and management of market variability delegated to the terminal part of a company’s working cycle (assembly) enables the company to solve the traditional productivity-flexibility dilemma’. See S. Gallinaro, *La produzione nell’economia dell’impresa industriale: da funzione e scuola*, cit., p. 55.


15 As Gallinaro underlines regarding modular partnership, ‘the geographical localisation of partners is not important, nor is it important that some companies with a modular (or virtual) organisation cooperate in one part of the world and compete in another.’ See S. Gallinaro, *Impresa e competizione nell’era della modularità*, op. cit., p.56. For example, ‘Agreement between Fiat Auto and Suzuki to produce a new Sport Utility Vehicle in Hungary. (…) The memorandum of intent envisages that from Autumn 2005 the Magyar Suzuki plant in Estergom, in the northern suburbs of Budapest, will produce 60,000 SUVs a year (20,000 Fiat and 40,000 Suzuki). (…) The Turin-based company will draw on Suzuki’s great expertise in this market segment’. See Accordo tra Fiat Auto e Suzuki per produrre ‘Suv’ in Ungheria, Il Sole 24 Ore, Milan, April 11, 2003. There are any number
of similar examples: The alliance between GM, Renault and Nissan took off in the Spanish plant in Zona Franca, outside Barcelona. (…) This agreement covers the long-term production of vans by Renault and GM which has now been extended to Nissan’s Spanish plant. (…) Renault and GM had been producing light vans together for some time (as the Renault Traffic and Opel Vivario).’ See A. Malan, Al via in Spagna l’intesa tra Renault, Nissan e Gm, Il Sole 24 Ore, Milan, October 23, 2002. And again ‘…for example, Toyota and PSA will produce three versions of the same model (Toyota Argo, Citroen C1, Peugeot 107) together, in the Czech Republic, to meet ‘bubbles’ of demand for cars with a low price, safety and personality’, see S.M. Brondoni, Market-Driven management e neoprotezionismo, in Mark-Up, June 2005, p. 27.

16 ‘On the supply front, in numerous sectors, a number of suppliers tend to characterise the competitive comparison with a planned acceleration of the process to innovate corporate proposals, so as to govern the conditions of instability that are endemic on the markets directly’, see M. Corniani, Segmentazione e aggregazione della domanda aziendale, cit. p. 58. In this regard, we must consider, among other elements, the example of the cell phone. Any innovation introduced in the product is soon imitated by other competitors and often perfected. The first cell phones with built-in cameras were proposed on the market at a high price, which was halved within a few months. In one year, competition exploded, concentrated on the innovation (increasingly precise definition of the photograph, increased phone memory, the possibility of taking short films, etc.) and the related characteristics (design, size, weight, etc.), while prices continued to fall.

17 ‘Modular organisations are able to achieve not only good manufacturing and strategic flexibility, but also and simultaneously, short lead times and time to market, low costs, good quality and service, sharing and therefore minimising the risks between several partners and gaining access to markets and technologies beyond the possibilities of the individual company’. See S. Gallinaro, Impresa e competizione nell’era della modularità, cit., p. 56 and following.

18 Cf. R. Kulpán, Global Business Alliances, Quorum Books, 2002. The author takes the example of the pharmaceutical sector, in which agreements defined between partners establish that, after a certain output is obtained from shared research, the main active principles identified are marketed as drugs in geographically distinct and carefully selected areas.

19 For example, we can consider the operation of a joint venture, a company that is legally independent, whose existence is linked to the achievement of a specific objective. The creation of a new company implies costs to be met (registration, personnel, lease or purchase of premises, taxation, etc.).

20 In this context, see M. E. Garbelli, Il sistema informativo nei network cooperativi di imprese, in S. Brondoni (ed.), Il sistema delle risorse immateriali di impresa: cultura d’impresa, sistema informativo e patrimonio di marca, Giappichelli, Turin, 2004.

21 In this sector in particular, among the largest mass production set-ups, the implementation of extremely efficient structures, which strive to reduce time lost, waste, etc., has made the manufacturing structure decidedly more rigid, in opposition to the reduced productivity of the artisan manufacturing set-up, which can still guarantee a flexible response to specific needs that may be submitted by the customer. However, as Corniani underlines, ‘competitors of the Ford Model T in the early 20th century were not the cars built in an almost artisan manner by other manufacturers, small gems of engineering destined to a few, very rich customers, but the other alternative forms of transport. There is still no alternative to petrol, in view of the absence of mass applications of forms of energy from other sources. Banking and insurance sectors in Italy are protected by exit barriers that discourage clientele from leaving, and they may in any case only choose from other brands, most of which offer similar services with the same competitive limits’, see M. Corniani, Segmentazione e aggregazione della domanda aziendale, Giappichelli, Turin 2004, p. 6.

22 Procurement becomes crucial when the availability of the resources to use in manufacturing processes becomes a problem. Making the necessary simplifications, which are useful in this analysis, we can say that procurement costs are made up basically of the cost of the materials purchased and the cost of transporting them. This affects the choice of the location of the company. Generally speaking, it is a recognised fact that the corporate space is managed statically or not very dynamically. The
companies that operate in economies dominated by a scarcity of supply generate an activity that is usually limited to a single area. This unique, static localisation is possible on these markets because of their particular environmental conditions (i.e. limited competitive intensity and the presence of wide areas of unsatisfied demand). Cf. M. E. Garbelli, Over-Supply and Manufacturing Localization, Symphonya. Emerging Issues in Management (symphonya.unimib.it), n. 1, 2002. In some sectors, the static nature of the market does not emerge naturally, but is induced by the agreements and cartels stipulated between suppliers or inside the chain. In fact, in the energy sector, a high oil price, which can justify a high extraction cost, makes it economically viable to also exploit ‘secondary’ wells. This would make oil more readily available to sell on the market because there would be more of it. However, we must underline that ‘in 1980, 36% of oil demand was absorbed by transport, in 1990 this figure was 41.5%, and it will exceed 50% before 2010 (...). In the United States, 80% of domestic demand is earmarked for transport, 40% of which is absorbed by SUVs (...). The energy saving made possible by technological progress and the development of more efficient engines is partially cancelled by the need to move heavier vehicles. See M. Ferrante, La scarsità di petrolio e il paradosso liberista dei Suv, in Corriere della Sera.

23 Controlled competition economies stand out for the decisive presence of a government with protectionist leanings which intervenes on the market to keep competitive intensity low, meeting some of the cost of a lack of competition; this creates a context that is deliberately kept stable and closed – particularly to foreign competition. However it is not unusual to find agreements between direct competitors (which often degenerate into cartels that damage competition and the market), in order to control environmental conditions that would otherwise be difficult to manage, and to shift confrontation from the price (price competition, which can degenerate into an open price war, inevitably and negatively reflecting on all suppliers) to the elements that qualify supply (particularly the brand and the system of guarantees to the end customer – non-price competition).

24 The shelf is the tool by which the retailer negotiates the selling conditions with the manufacturer. The retailer’s power emerges from a simple and apparently banal consideration: what does not reach the shelves cannot be chosen by the purchaser or, therefore, sold. The possibility of managing information that is useful to run the company, the concentration of several competing products in a single place (a fact that allows the customer to complete his purchases in a single shopping expedition), and the power of negotiating the position of the products offered at the point of sale with the manufacturer will become increasingly important elements that favour the retailer over the manufacturer, the stronger the competitive pressure at manufacturing level. The success of a manufacturing company therefore depends on one hand on its ability to reach the end market by establishing the brand, and on the other on the possibility of negotiating the best position for the product at the point of sale.

25 A single location and proximity to other sources of supply (typical of scarcity economies, particularly in their initial forms) are generally replaced by multiple locations, equal in number to the locations of the strategic activities. In this sense, the company breaks down into offices and branches, hierarchically linked to company management, but usually with relative decision-making autonomy.

26 The adoption of flexible, modular manufacturing systems makes it possible and economical to produce several product ranges (differentiation) and to develop new business areas, often closely linked to the first (diversification).

27 Commodities are one example: for agricultural products, for instance, it is not possible to distinguish between the various offers of identical products; the individual producer has no market power and cannot intervene to fix the price because he cannot exploit any element of differentiation in his products.


29 This reflects a precise characteristic that distinguishes it from markets where supply is scarce, where a product’s success is substantially the result of tangible characteristics, while in a state of over-supply the product reflects the dominance of intangible characteristics.
We adopt the classification drawn up by Sallez and Chaillou, who distinguish between:
- capacity sub-contracting, with the outsourcing only of stages making up the manufacturing process (usually operations not considered of strategic importance);
- specialisation sub-contracting, with the outsourcing of manufacturing techniques (‘expertise’ regarding the manufacturing process). Cf. A. Sallez, Sous-traitance, productivité économique et croissance régionale, in Economie Appliquée; vol. 2-3, 1975; B. Chaillou, Définition et typologie de la sous-traitance, in Revue Economique, no. 2/1977. We also underline that with specialist sub-contracting, the client company ‘looks outside the company for partners that specialise in techniques other than its own, and manufacturing capabilities for which it is not equipped’. See A.M. Arcari, *Il coordinamento e il controllo nelle organizzazioni a rete*, EGEA, Milan 1996, p. 141.

31 In this sense the brand which, in an increasingly complex environment, acquires intangible values, over and above the symbolic function already intrinsic in the brand (and expressed by the registered trademark), plays a role of primary importance in contexts dominated by low competitive intensity. As early as 1983, Kapferer and Laurent saw that the brand had several functions, namely *symbolism, orientation, guarantee, customisation, entertainment, practicality*. On this issue: Cf. J.N. Kapferer, G. Laurent, *La sensibilité aux marques*, Fondation Jours de France, Paris, 1983; S.M. Brondoni, *Patrimonio di marca e politica di comunicazione*, Giappichelli, Turin, 2002.