



## The product on the breeding pig market in the point of view of marketing

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### ABSTRACT

*In this paper we interpreted the product identity of the general marketing theory on an organizational market like the breeding pig market. The marketing literature describes product levels according to the consumer's value hierarchy. The five levels of Kotler's model were identified. Although we found correspondence between the five-level model and the characteristics of the breeding swine, there is a couple of exception as well. The generic product may not carry the core benefit in case of a breeding pig. The guarantee as an expected characteristic raises the core benefit to the expected product level. Analysing the product identity and identifying the product levels on the breeding swine market helps the sellers on this area to re-evaluate their product policy. Their marketing strategy can be finely tuned to the augmented product level that turned to be the most important one. The competition will become more intense on this level in the near future.*  
(Keywords: product, marketing, breeding pig market)

### ÖSSZEFOGLALÁS

#### A tenyésztés-piac termékfogalmának marketing szempontú elemzése

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*Megvizsgáltuk, hogy a marketing által használt termékfogalom milyen összefüggésekben értelmezhető egy olyan szervezeti piacon, mint a tenyésztés-piac. A marketing szakirodalma a termékfogalmat a vevő használati érték hierarchiája szerint szintekre bontja. Azonosítottuk a Kotler-féle termékmodellben szereplő öt termékszintet. A tenyészszüldő mint termék tulajdonságai a termékszintek segítségével értelmezhetőnek bizonyultak, azonban eltérést is tapasztaltunk az elméleti modelltől, ugyanis a tenyészszüldők esetében az elemi hasznot nem feltétlenül hordozza az alaptermék. A garanciatulajdonság egy termékszinttel magasabbra, az elvárt termék szintjére emeli az elemi haszon megvalósulását. A tenyésztés egyes minőségi jellemzői pedig – magától értetődően – nem biztosíthatók előzetesen. A tenyésztés-piac termékfogalmának elemzése, a termékszintek pontos meghatározása hozzájárulhat ahhoz, hogy a piacon eladóként fellépő vállalatok újraértékelhessék termékpolitikájukat. Marketingstratégiájukban pontosabban megcélózhatják a bővített termék szintjét, amely az elemzés során a legfontosabbnak bizonyult, hiszen előreláthatóan a piaci verseny ezen a területen fokozódni fog, a közelebbi jövőben el is dőlhet.*

(Kulcsszavak: termékfogalom, tenyésztés-piac, marketing,

## INTRODUCTION

The pork-production always has its own importance in the harmonized development of the farm and countryside life. (Sarudi, 1998) The cost effective production of pork in the required quality and quantity is a result of good feeding, health and environmental conditions, advanced farm technology and full knowledge of the nature of swine. (Sarudi, et al., 1999) But it seldom is possible to operate a farm successfully without carefully selected breeding stock with appropriate genetic background. The quality of the herd can be maintained or improved by purchasing or selecting the best offspring of the farm.

It would be hazardous for a pork-producing company to start its own independent genetic research program, since genetic improvement cannot be carried out with a small pig population. It is quite a task to improve all the desirable performance and carcass characteristics at the same time. Some pig breeders make the mistake and devote great selection effort to one trait only.

Analyzing the numbers of the breeding pig market it can be seen that the replacement percentage of the sows calculated on the base of the sold gilts is far from the 30-40%, from the reasonable value of the culling rate of the sows. Although the sow replacement percentage was very low even before the crisis of the 90s, the number of sold boars based on the total number of sows dropped to half of its values in the 80s. The conclusion can be drawn that the unregistered boars are numerous on the pork production farms. The pork producers have not recognized the importance of the male side replacement so far. (Kövér, 1998) So we can say, that the breeders prefer selecting breeding stock replacement from the progeny to the purchase.

One must not forget that it takes only 2-3% from the total cost of the pork production if the pork production enterprise joins a breeding organizations recognized by the government. The breeding organizations offer wide variety on the breeding stock market. The breeding organizations - according to their breeding method - encourage the sow-culling rate on the farms. This way they try to generate higher demand of the gilts and may increase the speed of the genetic improvement of the pig. The number of the sold boars and gilts can measure the size of the Hungarian breeding pig market. In the recent times 3-5000 boars and 30-45000 gilts were sold a year (OMMI, 2000).

To gain a better understanding about the processes of the breeding pig market it is essential to examine the characteristics of the product offered to the market for attention. This study applies marketing strategies to breeding pigs as a product.

The companies usually apply the various tools of marketing mix described by the modern marketing theory. The most popular four-factor classification of the marketing mix tools is shown in *Figure 1*. Although the all the four factors have its own role, the literature of the marketing emphasizes the importance of the product (Bauer-Berács, 1992, Kotler, 1991).

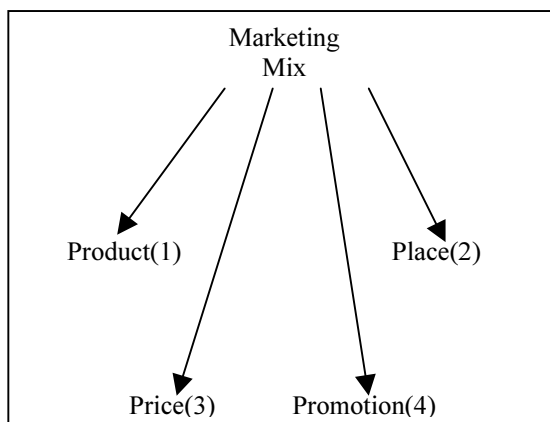
Our aim in this study is to examine the key element of the breeding pig market, the product. First of all Lehota and Tomcsányi (1994) - referring to Meulenberg - pointed out that the marketing on the agricultural area lagged behind the level of development of the general marketing theory. Among the reasons they mention

- The link between the agricultural producers and the final consumer is very weak or practically nonexistent. It is especially true in the case of the breeding pig market.
- The influence of the institutional regulations to the agricultural marketing is quite significant. We can mention the regulations in the area of animal welfare, hygiene and financial subsidiary.

The other reason of the analysis is that while today's competition essentially takes place at the product-augmentation level, in less-developed countries at the expected product level (Kotler, 1991).

**Figure 1**

**The Four Ps of the Marketing Mix (Kotler, 1991)**



*1. ábra: A marketing mix négy eleme*

*Termék(1), Hely(2), Ár(3), Promóció(4)*

**LEVELS OF A PRODUCT**

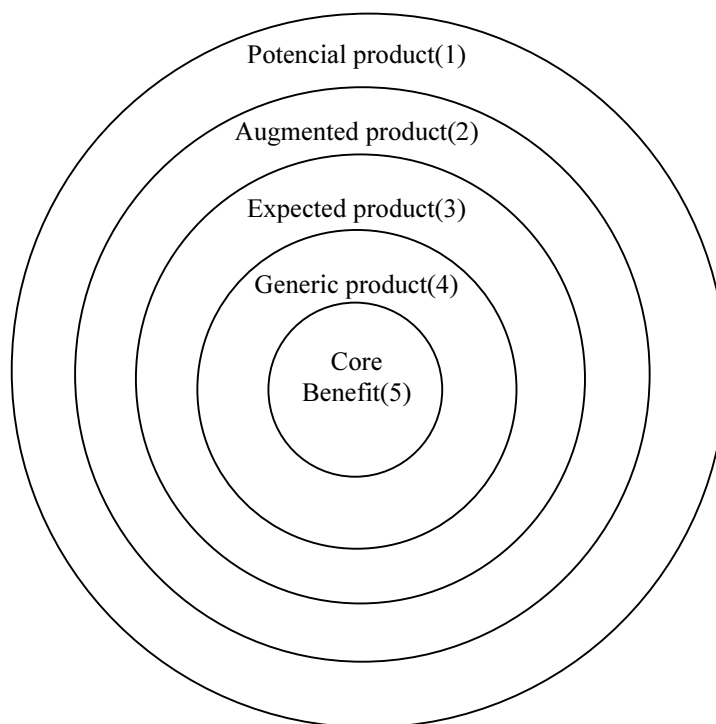
The key element of the marketing mix has been examined in detail by the respected authors of the marketing literature (Kotler, 1991, Levitt, 1983).

Kotler (1991) defines the product as follows: "A product is anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need." In planning its market offer or product, the marketer needs to think through five product levels (Figure 2) The five levels represent the consumer value hierarchy.

The product is a complex concept for both the seller and the buyer. The customer is really buying the core benefit that has been turned into a generic product by the marketer. The expected product on the third level includes all the attributes and conditions the buyers normally expect and agree to. During the competition the marketers prepare the augmented product. Namely they include additional services and benefits that go beyond the buyers' usual expectation. At the fifth level stands the potential product, all of the augmentations and transformations that this product might undergo in the future.

**Figure 2**

**The five levels of the product. Source: Kotler 1991, 430 p.**



Forrás (Source): Kotler, 1991

2. ábra: A termék öt szintje

*Potenciális termék(1), Bővített termék(2), Elvárt termék(3), Alaptermék(4), Elemi haszon(5)*

### **The core benefit**

The core benefit is the fundamental service that the customer is really buying. Without this characteristic the product is not able to fulfil its intended purpose. The pork producing enterprise is really buying the promise of the economically produced pork. It is true even if the purpose of the purchase is not slaughter pig production, but to contribute with some desired characteristics to the buyer's breeding program. This promise was stressed upon in an advertisement of one of the foreign hybrid swine producing company that seems to be quite familiar with the different tools of the marketing. The advertisement communicated the idea of a breeding sow with its lifetime production of 67 offspring and a total of 7-ton live weight. Even if their competitors may remark that the 7-ton is not an outstanding value, the message is clear. It focuses on the core benefit.

### **The generic product**

The core benefit has to be turned into a basic version of the product, namely the generic product. The generic products on the market we focus on are the boars and the sows. It is

worth to remark that usually no mature animal is offered for sale on the breeding swine market. A sow is too old at the time of qualification and a boar qualified by the results of its progeny is too valuable to offer to the competition. The generic product of the breeding swine market has a special characteristic. No one can foretell exactly the breeding capacity of any animal. The purchased boar may fail to settle sows; the purchased sow may fail to come in heat, or may fail to settle in second service. So the generic product of the breeding pig market may carry only the promise of the core benefit.

**Table 1**

**Main characteristics of the expected product**

Main characteristics of the expected product	
Record keeping(1)	Appearance(5)
Breed(2)	Breeding guarantee(6)
Breeding index(3)	Health state(7)
Own performance(4)	

1. táblázat: A tenyésztés „elvárt termék” fontosabb tulajdonságai

Törzskönyvezés(1), Fajta(2), Tenyészüldő index(3), ÜSTV index(4), Küllem(5), Termékenységi garancia(6), Egészségügyi status(7)

**The expected product**

According to *Bauer-Berács* the core benefit provided by the generic product in itself is not sufficient. The expected product is the set of attributes and conditions the buyers normally expect and agree to in buying the product. These further attributes can be for example quality, design, features, branding and packaging. These concepts apply essentially to the market of consumer goods and some of them still wait for interpretation in the area of the breeding swine market. The most important characteristics of a breeding pig as expected product could be found in *Table 1*.

- There is no way foretelling accurately the breeding capacity of an animal. Perhaps the most important characteristic of the expected product is the guarantee system. The hazards of buying breeding stock can be largely eliminated if the seller guarantees the animals to be breeders. In practise it means that the seller shall make replacement, or refund purchase price of any boar proved to be a non-breeder, provided he is returned to the seller's farm in healthy condition and satisfactory state of flesh. Similar conditions can be found at selling gilts or bred sows. These terms are included in the *Code of Fair Practise* that is suggested by the National Association of Swine Records (USA) for use in swine transactions (*Carrol-Krider, 1956*). The sellers on the Hungarian breeding swine market usually offer similar terms of guarantee.
- Producing large litters, making rapid gains, feeding efficiency, lean-meat percentage of the slaughter pigs and stress sensitivity are high breed dependent characteristic of the pig. Using a careful selection of the different breeds is an important factor in the success of the breeding program of the breeder.
- The selection of the new breeding stock should be based on the value of the animal own performance test and on the complex index value of the parents performance including the progeny test results. Boars are usually sold with the highest index values since the market requires only the fraction of the male progeny.

- The appearance of the pig is also very important to the buyer. Hungarian breeders prefer white colour, long body, six or seven well-developed teats on each side and strong legs without any defect. It is a basic requirement that the seller's herd should be registered with the pedigree of the animal in question and knowledge of the breeding performance of its parents is available. The seller's herd should be free of the four most important diseases (Aujeszky, leptospira, brucellosis, PRRS). The last two requirements are supported by the financial subsidiary system as well.
- As the generic product is nothing but a complete promise of the core benefit, so the expected product without the guarantee is only a promise of a good quality and an economical amount of slaughter pig.

### **The augmented product**

The level of augmentation depends on the activity of the producer. The seller offers more than the buyer expects due to competition in market sales. (Bauer-Berács 1992) These additional services and benefits distinguish the company's offer from competitors' offer. Looking at the buyer's total consumption system the marketer will recognise many opportunities for augmenting its offer. However each augmentation cost money. The company has to ask whether the customer is willing to cover the extra cost.

One of the most effective methods for augmentation is the crossbreeding. Crossbreeding is used to increase the number and performance of the offspring. As the parental breeds become more genetically distinct the amount of heterosis is expected to increase. Crossbreeding offers various opportunities for augmenting the breeding swine as a product.

**Table 2**

### **Main characteristics of the augmented product**

Main characteristics of the augmented product	
Hybrid parents(1)	Computer program(11)
Homogenous offspring(2)	Feed (12)
Selling grandparents(3)	Consultations (13)
Continuous crossbreeding(4)	Financial terms (14)
Sow qualifications (5)	Boar renting (15)
Sow selection(6)	Boar replacement(16)
Large quantities(7)	Stress insensitivity (17)
Several breeds on a farm(8)	Gene markers (18)
Bred sows(9)	Immunity against diseases (19)
Printed material(10)	

*2. táblázat: A bővített termék jellemző tulajdonságai*

*Hibrid szülőpár(1), Egyöntetű utódok(2), Nagyszülők értékesítése(3), Folyamatos hibridizáció(4), Koca minősítés(5), Koca szelektálás(6), Eladás nagytételben(7), Több fajta egy telepről(8), Vemhes koca(9), Formanyomtatványok(10), Számítógép-program(11), Takarmány(12), Szaktanácsadás(13), Fizetési könnyítések(14), Bérleti konstrukció(15), Kancsere(16), Stresszmentesség(17), Génmarkerek(18), Rezisztencia(19)*

The advantages of crossbreeding can be utilised even by those enterprises that based on purebred breeding stock. However the benefits of crossbreeding can be really exploited only if the enterprise joins to an accepted hybrid company. A successful crossbreeding program should provide high repeatability values of offspring-performance. The reproduction abilities of the hybrid swine are regularly tested and evaluated by the National Institute for Agricultural Quality Control (NIAQC) (OMMI, 2000).

- 80 percent of the Hungarian breeding stock market belongs to the hybrid swine producers. The advantages of the hybrid vigour is exploited also by one of the international companies that advertises its breeding stock emphasising on that the offspring are uniform and become ready for slaughtering simultaneously and in shorter time. Their competitors thereupon remarked that the lean meat percentage is below the best values.
- Beside the indisputable advantages of the hybrid parents we have to mention their disadvantage as well. Because of the regular culling of the sows and sires continuous replacement is necessary. It is a common consent among the swine breeders that the main source of risk is exposing the herd to various infections. Purchasing a breeding swine always means another chance of infection. The amount of the animal transfer can be reduced considerably, if the hybrid company is willing to sell the grandparent generation.
- Since the culling and the replacement is unavoidable buying only sires can be the solution. The continuous hybridisation is widely accepted in Hungary by the slaughter pig producers. Sows are to be purchased only once at the beginning, when the owner populates the herd. The numbers of boars required a year is insignificant and their separation for a few weeks after purchase can be solved without any difficulties. The breeding stock provider company usually takes part in qualifying and selecting the sow replacement as an augmentation of the product.
- Purchasing a large number of sows as replacement can be avoided even if the crossbreeding program of the enterprise is based on purebred populations. Usually these companies maintain a large purebred herd that provides the sow replacement.
- Besides the effect of heterosis one can find other means of augmentation on the breeding swine market.
- The quantity of breeding stock offered for purchase. The buyer may prefer another seller to the usual one just because of the required number of sows is not available from one herd only. The main reason behind the decision of the purchaser is the wish to reduce the chance of infections.
- Another buyer prefers purchasing the required two boars from the same farm even if they are from the lower quality to buying two high quality boars from two different farms.
- If the buyer is planning to populate a new farm with swine, there is the possibility of buying bred sows. These sows already proved to be breeders. They will sooner farrow pigs producing earlier income to the farmer.
- Sometimes computer programs and printed materials for record keeping are included in the seller's offer.
- The major factor in the cost of producing hogs is feed. Feed costs make up approximately 65-75 percent of the total cost of swine production. The sellers of the breeding swine market are trying to get orders of swine feed and augment their offer with feed delivery.
- Consultations and advices are very useful especially about expensive, sensitive animals. Questions about technology, feeding, reproduction may arise even after the

purchase and the augmented product may include post sale services as well. In some extreme cases after examining the buyer's experience and conditions the seller may try and talk the buyer out of the purchase saving him or her a lot of losses. Inexperienced buyer is not able to keep sensitive animals and the failure of the buyer affects the reputation of the seller.

- The international companies often augment their offers with different financial terms that are advantageous for the buyer. Sometimes the most expensive boars can be rented. The rented boar can be even replaced without additional costs when a better boar is available.

The examples above are far from a complete list of the augmentation possibilities. A lot of other characteristics of the breeding swine could be discussed, like stress-sensitivity, gene marker technology, resistance, or immunity against certain diseases etc.

### **Augmented benefits become expected benefits**

The characteristics of the augmented product soon become expected benefits. The successful features soon will be included in the competitors' offer. Examples from the breeding pig market are:

- Nor boars neither bred sows can be sold without the guarantee that the animals are breeders. No breeding pigs can be sold from farms that are not free from the most dangerous diseases. These characteristics nowadays really belong to the expected product.
- Stress sensitivity often responsible for the losses during transportation and for the unfavourable meat quality. The stress sensitive animals may die as a consequence of inconsiderate or unusual treatment. Unfortunately it is quite common that stress sensitivity is paired with some other favourable traits, like high lean meat percentage and high daily gain. Stress sensitivity has a higher rate among the pigs in the more muscular breeds, but can be found even among the large white pigs as well. With careful selection work the breeder can exclude totally this disadvantageous trait from a large white herd. In the last few years only stress insensitive large white pigs were sold in Hungary, and this feature now belongs to the expected product.

### **Potential product**

Potential product stands for all the augmentations and transformations that a product might undergo in the future. The potential product points to the possible evaluation of the augmented product. Quite a few pig breeders can see no potential product on the Hungarian breeding pig market. In their opinion we have every different breed and hybrid of swine of the world, so nothing new can be expected. These opinions also support the statement about the undeveloped agricultural marketing mentioned in the introduction. After analysing the levels of product we can point out that several new features will be expected in the future.

The sellers are not willing to tell much about their plans, even the literature of the marketing says very little about the potential product.

Even in this case certain changes can be foretold. The regulations in the area of subsidizing, environment are expected to be changing during the joining to the EU. On the European breeding pig market we can find some products that are missing from Hungary. For example the fattening of the young boars is common in Ireland and in the UK. Beside strict technology the feeding efficiency and muscle building abilities of the male side can be utilized. Slaughtering the male pigs at the proper age then marinating or smoking the meat parts can help avoiding the unwanted male odour (*Házás-Vagyton*, 1989).



## CONCLUSION

The marketing on the agricultural area is lagged behind the level of development of the general marketing theory. This is especially true on those areas like the breeding pig market that has no direct connection to the final consumer. In this paper we interpreted the product identity of the general marketing theory on an organizational market like the breeding pig market. The five levels of *Kotler's* model were identified. Although we found correspondence between the five-level model and the characteristics of the breeding swine, there is a couple of exception as well.

Total quality control is possible in the production process of most products. The breeding swine is different. No one can foretell the breeding performance of an animal. The generic product may not carry the core benefit in case of a breeding pig. The guarantee as an expected characteristic raises the core benefit to the expected product level.

Analysing the product identity and identifying the product levels on the breeding swine market helps the sellers on this area to re-evaluate their product policy. Their marketing strategy can be finely tuned to the augmented product level that turned to be the most important one. The competition will become more intense on this level in the near future.

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