Evaluation of the potential interest of Italian retail distribution chains for Kamut-based products

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Summary

Kamut® is a registered trademark cereal (an organic crop) whose origins are much older; it has Egyptian origins and at the present time it is grown in different areas of the world (mainly in Montana and Canada), but considering the agronomic requirements of this crop, the tests in Thailand are the most reliable. Evaluation of the interest of retail distribution chains for Kamut-based products belongs to the researches regarding the evaluation of the quality food products trade. In this case, countries involved are Thailand, one of the most important producers, and Italy, one of the most important market of the EU. Qualitative analysis technique was the most appropriate tool. This survey consisted of in-depth semi-structured interviews directed at Italian large scale retails (purchasing and marketing managers). The final information were obtained through a subjective analysis of the content of the interviews' summaries, a statistical analysis of the content of the interviews and the creation of conceptual positioning maps. The awareness of the product, the communicative factor, the consumers' reactions, the specific requirements of the distribution chains and production areas are some of the most important elements that can influence the creation and the development of a international trade relationship.

KEYWORDS: organic products, quality food products, international trade, Italian large scale retail, qualitative analysis technique

1. Introduction

This survey belongs to the researches regarding the evaluation of the quality food products trade, in particular focuses on the products obtained in places which are culturally and geographically far from the place of distribution.

The analysis concerns Kamut, that is a registered trademark for a special grain (Triticum turgidum spp. Turanicum, also known as Khorasan wheat), grown following the prescriptions of organic agriculture. It is genealogically similar to modern hard wheat but its origins are much older; after a long period of obscurity, it has been rediscovered and, at the present time, there is a noticeably growing interest for the product thanks to its intrinsic (high nutrition value, particular taste and freshness, high digestibility, high content in selenium) and extrinsic (Kamut® is only grown using organic agriculture methods) characteristics. It was first grown in the area between Egypt and Mesopotamia, for many years it was forgotten, it spread in North-America afterwards, mainly in the North-East and central areas of the Montana and in the North-West area of the North-Dakota, in the USA; in the provinces of Alberta and Saskatchewan, in Canada. Currently, it is grown in different areas of the world, but considering the agronomic requirements of this crop, the tests performed in Thailand are the most promising.

Maybe the most indicative aspect of the Kamut introduction and growing is its importance like a new crop of sustainable agriculture; the production of a high quality cereal without the need of using synthetic fertilizers and pesticides, defines an excellent crop for the application of organic agriculture methods.

The system that manages the licence of use of the registered trademark Kamut® entails the involvement of numerous subjects. Independently from the production place, farmers who want to benefit from the licence must sign a contract with the Kamut International Ltd. or the Kamut Enterprises of Europe bvba. They are two societies that manage the licence of use of the registered trademark in different areas of the world: the former is based in Montana, USA, the latter in Belgium. The contract previews the delivery of certified seeds Khorasan wheat, obtained with methods of organic production and in purity; if during the harvesting, the cereal is in compliance with the contractual detailed lists, it is allowed to show the registered trademark Kamut®. At the moment 90% of the cereal imported in European Union (EU) comes from Canada, where the exporter takes care of the coordination of the dealerships farmers for the production, the warehousing of the cereal, the selection and the delivery in EU. In particular in EU there is only an importer dealership "the Kamut Enterprises of Europe bvba" that satisfied the royalties to the Kamut International Ltd.; this importer sends the container of wheat grains to the authorized importers in every European nation. The importers buy wheat grains, transform it in flour or bran, then the transformers (bakeries, pasta factories, etc) introduce them in the market.

2. Background

Actually the exports in Europe represent 62.5% of the total production of Kamut. The remaining part is divided between Canada, the USA and Japan. Therefore, Europe represents the more important destination market for the Kamut cereal and on such market a lot of attention is put for the chances of further development.

In three European nations (Germany, France and Belgium) nearly all the imported Kamut grains are domestically consumed, while Austria imports and re-exports most of the Kamut grains, with a domestic consumption and production that is minimal.

In particular, Italy imports approximately 70% of all the Kamut wheat exported in Europe. The main processed product is by large extent represented by noodles, followed by bakery products of every kind, puffed cereals, and granola. The ability to the processors operating on the Italian territory, together with the great tradition in the production of cereal-based end products has given as a result a fast and constant growth of this market, that it is today the European point of reference for the production and the innovation on the Kamut-based products.

The production of Kamut-noodles absorbs approximately 35% of the Kamut import in Italy. Until the first half of 2006, most of this typically Italian product was strongly demanded from foreign markets, while the domestic market was not particularly lively. For this reason, the greater part of the processed product took the way of the export.

In the second part of 2006 a fast growing demand from domestic operators was noticed. They have begun to exit from the consolidated mainstream of the national distribution, based on the specialized food stores, beginning to introduce the Kamut-based products in the large retail[1].

Therefore an in-depth survey of this challenging distribution channel in this country represents a fundamental support for deciding about this interesting and strategic distribution option.

This research was commissioned by the Chang Mai Rice Research Centre, a research company based in Thailand, that, through Small Projects Facility plan from the EU, obtained funds in order to develop a plan related to the experimentation and cultivation of

[1] All these information are of exclusive availability of the Kamut Enterprises of Europe bvba, which is not available, for business confidentiality reasons, to their integral diffusion. Therefore, the present paper is based on what is thought suitable to the diffusion in the public domain by such company, on the base of its own communication policy.

the Kamut in Thailand. The Kamut Enterprises of Europe bvba and the section Kamut Italy were also involved in the project. They provided to us the informative material for our interviews.
Currently, Kamut-based products are present in Italy in particular channels including specialist health stores, herbal medicine stores, organic food stores and so on.
Therefore the consideration of large scale retail, which in Italy presents some peculiarities in comparison with other countries of EU, becomes necessary for a wider diffusion. Despite the existence of large companies, the average dimensions of the Italian large scale retail are still fairly small; in fact, the degree of fragmentation is not comparable to any international markets and this fragmentation is probably a reason for the delay of the Italian retail sector development. Italian retail distribution chains often adopt strategies to achieve a complete and qualified supply; these strategies mainly aim to raise competitiveness in the demand side, but the features of these products are not often in line with the technical-economical requirements of this distributive channel. The peculiarities of Italian large scale retail emerge also about the distribution of organic products: furthermore Italy despite being the European country with the largest cultivated area and the third biggest organic food producer in the world behind Australia and Argentina (Tamburrano, 2004) still lacks a production chain structured like a genuine market segment because the most part of the products is consumed abroad and mainly in the countries of the North-Europe. By comparing production areas to the places where organic products are processed and consumed, many studies reveal a dichotomy in the Italian supply chain. Whereas the production is concentrated in the South and in the islands, manufactures and consumers processes are more densely concentrated in the central-north area, where modern distribution also plays a major role.
Italy is currently experiencing a period of stagnation in terms of food consumption but the most recent data show a turning point in this negative trend: after the exceptional negative date recorded in 2004 -0,5%, the food consumptions showed a significant rise in 2005 +1,8% (Sckokai, 2006). Organic products sold in the modern distribution channel seem to be most severely affected by this stagnation of food consumptions. Modern distributors began commercialising organic foods at a time in which the push to consume organic products was very strong. The commercial strategy adopted by distribution chains is predominantly based on the economic convenience of products and it is intended to generate savings for customers (discounts, price cuts, promotions). This proves to be decisive for the purchase of organic products, which are still somewhat expensive despite the fact that prices are more comparable to those of conventional products. Under these conditions, the decision of modern distributors to extend promotions to their organic products may reduce the appeal of such products to consumers (Lunati, 2005).

3. Objectives

The buyers expressed the need to define and to deepen the awareness about the dynamics and the commercialization of Kamut-based products in the markets of the EU. In particular countries involved in the eventual creation of a relationship trade are Thailand, one of the most important producers, and Italy, one of the most representatives and peculiar market of the EU where the supply of quality food products is perceived with scepticism.
In particular, the evaluation of the potential interest of the Italian large scale retail for Kamut-based products is the intermediate aim. The final aim is the evaluation of the opportunities for the creation of a new trade relationship between countries which show different geographical and cultural features. The general objective can be divided into five specific subjects, as follows:
1) To find the main reasons that might induce distribution operators to sell Kamut-based products and to find opportunities for the creation of a new international trade channel.

2) To obtain information about the expectations of distribution operators regarding the possible reactions of the consumer who face the opportunity to buy Kamut-based products and therefore to evaluate the attitudes of different actors in the channel.
3) To underline the factors that might limit or obstruct the introduction of Kamut-based products and the factors which can create limits in the relationships among subjects of the supply chain.
4) To investigate the characteristics that might be relevant for the perception of quality of the product and to evaluate the most important characteristics in the relationships among subjects of the supply chain.
5) To identify the main products that might compete with Kamut-based products to extrapolate useful information on the different distributive strategies used in the Italian chains.

4. Data and methodology

The choice regarding the methodology was influenced by the need to reveal ideas and to analyse interesting factors about new or unknown phenomena and to understand the complex relationships which exist in the supply chain. In this context, qualitative analysis technique was the most appropriate tool.
The reference sample was defined through a non-probabilistic sampling method and selection of the individuals to be interviewed then followed using a "convenience sampling" procedure. In this case, an attempt was made to ensure an extensive coverage of the territory with respect to the distribution of sales outlets and/or type of distribution organization (co-operatives, private companies, associated/leader companies, smaller businesses).
Particular attention was dedicated to those agents who cover positions regarding the organisation, the knowledge, the promotion of the assortments in the food distribution. Mainly purchasing managers and marketing managers were recruited. The operators were recruited over the telephone, but we had already sent an introductory e-mail outlining the project. In total, 43 contacts were selected, some of the selected subjects declined to participate (16), while other ones accepted but did not really make themselves available for interview (6). At the end of the planned period for collection data, 21 interviews had been conducted (11 in person at the distributor's workplace and 10 over the phone). The required information were collected (both direct and telephonic interviews) by means of in-depth interview directed. The interviews were supported by a semi-structured outline. Special attention was placed on ensuring that the semi-structured outline was not directly passed to the interviewee but rather that it served as a cue card to help the interviewer to remember the interview topics. The semi-structured outline was composed of five themes that were required for the achievement of the final objective; for each objective a range of possible "inputs" was listed. They were specific questions or statements that the interviewer could use as a tool to encourage interviewees to express their own opinions. The purpose of the outline was to help the interviewee and they did not represent a constraint. Interviewees could express their opinion with total freedom. The presence of an interviewer and an assistant was generally required to conduce this kind of interview. Essentially the assistant had the role to note the main elements of conversation and to record it (if authorised).
The prescribed methodological process comprises the following phases:

- preparation of the interview, involving assimilation of objectives and inputs, preparation of informative materials ad equipment for saving and recording;
- administration of the interview;
- interview summary which is aimed at highlighting those elements deemed most important to an initial analysis;
- transcription of the recording (if authorised);
- analysis of the documentation.

The interviews lasted (in average) 45-60 minutes in order to allow for an in-depth investigation of the proposed themes.
The territorial coverage of the interviewed companies reflected the actual distribution of sales outlets in the different Italian regions (Table 1): from the information deriving from the interviews, we can claim that there is a greater presence of total sales outlets in Southern Italy, however most of the interviewed companies are settled in the Central-North regions (Table 2). The coverage of distribution companies interviewed by sales area category reflected the current situation. We show a prevalence of small-medium stores which is typical of Italian retail (Table 3).
The final information were obtained through qualitative analysis techniques; the following steps were carried out:
- *Subjective analysis of the content of the interviews*
The essential objective of this analysis is to present the most interesting factors arising from each interview in order to gain an extensive overview of interviewees' attitudes towards the themes under investigation. First of all the analysis required the reading of the interview summaries considering the aspects of direct conversations, aspects of not oral communication and characteristics of the distribution companies. The summaries have been written by the assistants interviewers after every interview in order to avoid the loss of useful information. Every important factor, on the basis of the objectives of the survey, is emerged by the reading the summaries and by highlighting extrapolated sentences from the transcription of the interviews. The analysis serves as an initial screening by supporting the subsequent content analysis.
-*Statistical analysis of the content of the interviews*
The content analysis is a qualitative analysis which can combine a correct interpretation with a major objectivity of the results. The material used for this kind of analysis consists of unabridged transcriptions of the recorded conversations; in order to reduce the workload linked to the management of the data, the decision was made to select a number of interviews which conceptually represented interviewed respondents with different characteristics. A database was created from the recordings by transcribing the unabridged version of the selected interviews. Subsequently the program "Text Smart" of the statistical package SPSS was used for the quantitative evaluation of the content. In this case, the decision was made to adopt a quantitative approach to analyse the results deriving from the unabridged interviews; this approach is more structured, deductive and oriented towards the reduction of information than the qualitative approach. In a balanced way it reduces information into a more limited number of representative concepts.
The analysis stream adopted consisted of the following phases:

- identification of sub-texts for consideration during the analysis and conceptual clarification of the meaning of words or sentences;
- creation of an archive containing words devoid of meaning for the objectives of the investigation ('empty words'[2]);
- creation of an archive 'purged' of 'empty words';
- semantic categorisation of sub-texts under consideration;
- evaluation of the importance of semantic categories;
- potential association between the semantic categories.

Sub-texts were identified to highlight those segments of conversation with high informative value, segments which were able to express concepts related to the theme of the discussion. These portions of text were retraced to specific semantic categories which could represent their meaning. The importance of the semantic categories identified may not be measured exclusively by examining the frequency with which the headwords representing them are mentioned during the discussion. In order to standardise the value of each semantic

[2] 'Empty words' (e.g., and, of, from, the) are lexical components which are instrumental to sentence construction but devoid of autonomous meaning (Bolasco et al., 2004).

category with the actual relevance assumed during the discussion, the *Term Frequency-Inverse Document Frequency*[3] (TFIDF) index was calculated. This index is based on two assumptions:

- the representative ness of a headword or lexical root increases as the frequency with which they are mentioned increases;
- specificity decreases as the number of interventions in which the semantic category appears increases.

The TFIDF index was then used as a parameter to identify possible conceptual associations between the semantic categories.

Consequently, the analysis leads to the creation of tables listing the frequency of semantic categories within each discussion analysed with the relative TFIDF values, as well as the proposal of conceptual associations between them.

- *Conceptual positioning maps*

This type of analysis focuses on the possibility of defining relationships[4] between different semantic categories on the basis of their positioning on a map. The objective is, therefore, to draw the cognitive map of the semantic categories under discussion and then interpret its dimension, which represent the structure of its logic. The basic objective behind the mapping of the semantic categories previously identified through content analysis is to unearth and render explicit certain information that was only implicit in the previous analysis.

The maps have been constructed using the technique of Multidimensional Scaling (MDS). In particular, the MDS procedure consists in creating perceptive maps of the phenomenon under investigation through information on the proximity (or similarity) between different objects, also termed "stimuli". More specifically, the concept of proximity must be intended as the level of similarity (or closeness) or dissimilarity (or distance) that exists between each couple of semantic categories. The co-occurrence matrix is the basis to calculate this value of proximity: it is a rectangular matrix $A_{i,j}$ where the "i" line vectors correspond to the comments of interviewees and the "j" column vectors correspond to the semantic categories identified by the content analysis of the interviews; the value of proximity is calculated on basis the relative frequency of mentions of each category traceable in the co-occurrence matrix. To this end the ASCAL algorithm adopted in the MDS application contained in the statistical package SPSS was employed.

This technique allows us to identify the optimal configuration of available data via a limited number of "factor axes", which constitute the "dimensions" of the perceptive map, so as to reveal the model at the basis of the data employed (Fabbris, 1997; Hair et al., 2003). In this way one obtains a visual instrument for interpreting the phenomenon under analysis both in an empirical sense and in more rigorous senses, treating the results with other methods of multivariate data analysis.

The phase of evaluation of the validity of the adaptation of the coordinates to the measurements of initial dissimilarity, comes about by calculating the so-called STRESS value (STandardized REsidual Sum of Square), which indicates the variance proportion of the disparities (proximities) not considered in the final coordinate model of the MDS analysis. The closer the STRESS value is to zero, the greater the adaptation of the model to the initial dissimilarity values ($\delta_{i,j}$); the final configuration in euclidian space of the stimuli will therefore more faithfully represent the initial perception of the comparison of stimulus

[3] In Text Mining procedures, this represents an indicator used to evaluate the importance of headwords appearing in the text (Salton et al., 1988).

[4] The relationships that may be established between semantic categories occurring in a text may be of oppositeness (on a conceptual axis they appear at the two opposing extremes), of contradiction (of negation, but not of oppositeness), or of a complimentary nature (relationship between two categories of elements previously described). For further information on the subject, refer to Molteni and Troilo (2003).

pairs analysed. Although many scholars suggested methods exist for calculating this index, in this case we have used the one proposed by Kruskal (in Hair et al., 2003) where STRESS values ≤ 20% were considered acceptable.
Together with the STRESS value, the analysis also considers the RSQ index (Residual Sum of Square), which provides indications on the proportion of spread variance. Normally a high RSQ value indicates that the distances estimated by the MDS algorithm have a good capacity for approximating the initial disparities, and therefore a more faithful multidimensional graphic representation of the phenomena investigated.
In this study, a STRESS value ≤ 10% and simultaneously a RSQ value ≥ 95% were considered acceptable.
The number of dimensions chosen for the perceptive map is the result of a compromise between the validity of the model (STRESS value ≤ 10% and RSQ value ≥ 95%) and the need to obtain a map that is easy to understand and interpret (Table 4).

5. Results

Now we describe the aspects that can mainly influence the topic of the international relationships inherent to the commercialization of the quality food products; the complete sequence of the methodological techniques described in the methodological part will be used to highlight the factors which could limit or obstruct the introduction of Kamut-based products.
The achieved results will be described on the basis of five objectives of the research.

5.1 Reasons for introduction

The subjective analysis of the interviews' summaries is useful for this first topic of our discussion. By this analysis, contrasting factors emerge.
In distributors' opinions, Kamut is a new food product, though its origins are much older, which has an high qualitative standard with special characteristics ranging from nutritional/health aspects to ethical/environmental ones.
According to many distributors, Kamut represents an opportunity to increase a wide supply which has been static for many years because of the negative consumptions' trend. The behaviour of managers is not oriented exclusively to meet the needs of a specific group of consumers (non serious intolerances and allergies) but rather it is aimed at broadening their own product mix in order to attract interest from those people who are not apparently motivated by particular physical diseases, but who are driven by impulses which are not known by distributors yet. The eventual introduction of Kamut in the market is linked to each retailer's opportunity to make his own brand. This is an important factor because by now the most part of the Italian distribution chains adopts strategies for the trade of quality food products, therefore it is necessary a strategy oriented to the products diversification.
The business opportunities for the producers, and consequently for the transformers of the raw materials, vanish when they don't provide the product with high standards and provide occasional and not exhaustive exhibitions of formats. This limit could be resolved if the introduction of Kamut-based products was guaranteed by a national agent which could organize with efficiency the connections between the places of production and distribution.
The main limit concern the lack of awareness and communication among the interested agents. The link between Kamut and organic production methods does not provide interesting comments. First of all because distributors believe it is important to guarantee a fairly multi-purpose identity of the Kamut-based products; it is necessary to promote multiple properties at the same time, so the organic aspect could be another important product attribute. Secondly, the organic food industry is going through a difficult period in the Italian not-specialized retail sector due to a series of combined factors (e.g. the unfavourable economic scenery) and the risk is that an exclusive Kamut-organic product

could be perceived by consumers only as a ploy to justify the product's rather high price positioning.

5.2 Expectations of distributors regarding the consumers' reactions

The distributors' opinions regarding the consumers' reactions towards Kamut-based products are rather interesting. The distributors hold a favourite status because they are very close to the consumers and they are able to observe their purchases and to infer their reactions. The consumers' role in the distribution chain of a quality food product is clear: in this case the consumers' reactions are even more significant because Kamut is a niche production and so it cannot satisfy the needs of all consumers.
The consumers' hypothetical reactions come from a typical consideration: the general level of awareness of the product results rather low due to the lack of adequate information and clear definition of the product itself. The consumers' hypothetical reactions are influenced by different needs. Among the emerged reactions, the ones deriving from the consumers' willing to try new and unconventional products, different from the standard traditional supply, assumed a relevant status (this one emerges from statistical analysis of the content: frequencies and TFIDF index). The deep knowledge of the characteristics about the food culture creates this need. The research of the historical/environmental factors is one of the motivating aspects; this factor often represents the mean by which it is possible to create a trade channel among countries with different culture. In spite of this, during the purchase process there are consumers who are influenced by ethnocentric factors (traditions valorisation) that generate difficulties for internationalization of the trade relationships.

5.3 Limiting factors

A conspicuous series of factors capable to limit the introduction of Kamut-based products has emerged from the subjective analysis of the summaries of the interviews; these factors assume a different importance in the subsequent analysis which is conducted with a quantitative approach. The statistical analysis of the content of the interviews on the basis of the unabridged transcriptions of the recorded conversations used a initial vocabulary which is composed of 138 "full lexical forms"; these ones have been traced to 24 semantic categories (not all of them are relevant for the interpretation. Those with the lowest frequency are considered because of the methodology chosen during the process of categories identification and the creation of the text database). By the analysis of the frequencies and of the TFIDF index we show in Table 5 that it is possible to interpret with more effectiveness the results. The variations in the index TFIDF provide important information for the interpretation process.
First of all the source of the possible reduced inclination to adopt Kamut-based products is the low level awareness of the product characteristics which determine its qualitative value. This is essentially explained by an insufficient communication and a specific lack of information by institutional bodies and trademark holders at Italian and Europeans levels (SC15); among the identified key words it is therefore reasonable to assume that, in this context, the communication is the crucial factor for the introduction of Kamut-based products in the market. Quoting one of the most significant phrases emerging from the research, namely that "*Information creates necessity*".
If we consider the hierarchy of the semantic categories, if the first one in the list can be considered the main motivation, the second one, equally dense in significance (TFIDF=14,8), can be interpreted as a consequence. In fact the price (SC17) would not represent a critical factor if the product was supported by an adequate information campaign which explains the features of the product in depth: the origin, the niche production, the intrinsic and extrinsic aspects, etc.

The problems related to logistical management questions are predominant and mainly concern the frequent delivery of a wide products quantity and the rotation speed of the stocks. Unfortunately the reduced Kamut-based products quantities, the fact that they are not always available because they are only cultivated in some areas and the actual consumers' demand do not generate a high rotation speed. Besides, the evolution of Italian large scale retail lead to major presence of medium-small size structures (supermarkets and superettes) where limited shelf space represent a substantial obstruction for the introduction of new and not yet well introduced products (and may be they will never work in a consolidated market).

The Italian food industry has a highly fragmented structure; it has a product range lack in terms of the width and depth of supply (SC03) and can hardly promote niche Kamut production: for this reason the Kamut introduction should be obtained through food supply chains managed by a national agent which can correctly manage the supply.

The connection between culinary, cultural and geographic traditions (SC19) has been mentioned less as a factor to enhance the development of the supply chain, because it is a parameter mainly influenced by the territorial coverage of the retail companies, rather than by the interviewee's subjective evaluations. In fact, phrases belonging to this category can be traced to distribution chains service sales points in many different regions of the country and consumer behaviour can be interpreted according to different regional traditions. Italian people love their traditions, particularly their culinary traditions, and in certain regions (the South and islands) it is difficult to successfully introduce new products coming from far-off countries. This generates the need to reflect on whether or not these prejudices might be limited by local production: the fact that there are still experimental productions in Italy is not widely considered, whereas the "Made in Italy" raw material transformation is perceived as a further product quality evidence (e.g.: Barilla and De Cecco[5]).

Among second level transformation products, pasta is the most interesting one: in fact the Italians consume the largest amount of the pasta in the world but the positive perception of consumers does not induce experiments about new raw materials. Experiments regard less standardised products like the bread substitutes and other similar products to test the consumers' consensus. An interesting portion of interviewees claim that the first level transformation products (as the flour) exhibit the best market potentials, because they are versatile products and may stimulate consumers' culinary skills. However the risk is that the distinction features of this product could not be perceived anymore by consumers over time.

In trying to construct a conceptual association between semantic categories, the crucial evidence is the unanimous importance attributed to the "Communicative factor", regardless of whatever opinion may be expressed. Departing from this assumption, we can identify many critical points correlated to the introduction of Kamut in relation to the different phases of the agribusiness process: productive/transformation phase, distribution phase, consumer (Figure 1).

Through the positioning of semantic categories on a map whose dimensions represent the logic structure which is the basis of the analysed data we could determine the drivers of the Kamut market development. The representation of the "stimuli" in a space with three dimensions is the best configuration since the STRESS value is 0.073 and the RSQ is 0.989.

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[5] During the investigation it emerged that De Cecco, one of the biggest Italian pasta companies in the national and international market, distinguished by a high-quality market positioning, is now beginning to produce and offer Kamut-based pasta to Italian retail distribution chains; however, only one of these chains declared any knowledge of this, in fact, it was not mentioned until after the interview.

The disposition of the 24 categories permits an easy interpretation of each individual axis thanks to the clear distinction between the most important aspects (Figure 2). The three dimension are:

D1 = Economic factor

Examination of the configuration of the semantic categories in the first dimension (D1) permits us to interpret it as the limitation dictated by the product's economic aspects (a high sales price), since the price factor category exerts such a dominant influence over the significance of the axis.

D2 = Requirements of the sector (company management instruments)

Looking at the second dimension (D2) it is immediately clear that at one extremity of the axis the theme of information and communication (SC15) appears, and at the other one there is the theme of management of the assortments within sales outlets of large scale retail (SC16), while all the other categories show the same level of importance for interpreting the dimension. This reconfirms the hypothesis that emerged in the content-analysis phase, where we underlined the limiting factors for the development of the Kamut-based products and the sustaining of its diffusion over time. The contemporary application of both an informative level and an internal organisational level allows us to interpret the axis with the term " "Requirements of the sector (company management instruments)".

D3 = Informative promotion at every stage of the production-to-consumption process

In interpreting the third dimension (D3), the hypothesis that emerged during the content-analysis phase is again confirmed, namely that one of the principal drivers influencing the discussion of limiting factors was the need to spread information about the product. In this case, the category of "Awareness" (SC14) and the category "Pressure from suppliers" (SC03) are positioned far from the central vector. In the graph two actors deserve our attention (precisely the most upstream and downstream subjects): the producer/transformer who needs to push his product and promote awareness about its special characteristics, and the consumer who is the final recipient of this informative promotion and determines the eventual commercial success of the product on the market. From these reasons, we can infer the need for putting into practise "pull marketing strategies" (based on attraction) in which companies use product advertisement or sales promotion directed to the consumer so that the purchaser will be induced to "pull" the product along the distribution channels.

It is correct to assign a meaning to this dimension that is explicitly connected to the informative promotion at every stage of the production-to-consumption process.

5.4 Important features for perception of the quality of the product

Kamut-based products' high qualitative level is due to numerous characteristics ranging from nutritional/health aspects to ethical/environmental ones. The statistical analysis of the content, by means of the frequencies and TFIDF values, evaluated the importance of each attribute.

The consumers' perception is mainly influenced by the nutritional/health aspects. Some internal components have a rather beneficial influence on the physical body; this aspect could suggest to deal with Kamut as a functional product. The high protein level might attract the interest of big industrial names on the Italian market who wish to improve the technological characteristics of traditional wheat, and thus implicitly stimulate the attention of the large scale retail.

The organic production method represents an important aspect that must be severely controlled to avoid that a deformed perception of this attribute can reduce the attractiveness of the Kamut product.

The consumers' perception is strongly influenced by the organoleptic characteristics too. A not exhaustive and too different taste from the typical and traditional ones can reduce any further purchase and therefore impact on the initial demand. In any distributors opinions,

however the historical/cultural aspects are associated to a particular taste. The geographical origin influences positively the consumer' curiosity. For the trading of food products, the relationships between distant countries require organoleptique, cultural, law and logistic solutions. Moreover the fact that the word "Kamut" could represent different cultures and traditions can be an interesting competitiveness factor.

5.5 Competitors

Other important issues have not been discussed yet. Given that the most significant competition would come form products that belong to the so-called "Wellness group": within this category the most important competitor is undoubtedly the Spelt in the demand side. It holds a competitive status in terms of recognition because it is a national production characterised by antique traditions, quality and technological versatility. Moreover as for the sign of food supply' contracts, Spelt market is not affected by the specific requirements in the trade relationships extra-EU.

6. Final remarks

The survey revealed some opportunities to introduce and develop Kamut-based products in the Italian large scale retail but the development conditions are closely related to trade strategies; these ones distinguish one distribution chain to the other and determine a different approach in the interested actors (e.g. providers, customers, etc). The survey highlighted that interesting issues might possibly lead to further research activities. These issues could allow to correctly plan international trade in order to match the needs of the local consumers. However it is also important to compare this plan with the standards required in each country for the production and distribution.

Finally through our survey we could highlight important issues which will be useful to better integrate the main production regions (e.g. Asia) to the most important consumption countries (e.g. EU).

This information will be very useful to generate hypotheses for subsequently exploring this problem.

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Tables

Table 1 Large scale retail by sales area category and by geographic area

	Trade Centres	Hyper-markets	Super-markets	Discounts stores	Cash and Carry	Department stores
North-East	81	108	1644	633	94	207
North-West	51	201	1748	772	86	275
Centre	58	88	1410	646	60	313
South and islands	65	113	2558	709	104	321
Total	255	510	7360	2760	344	1116

Source: Giacomini and Mancini, 2005

Table 2 The territorial coverage of distribution companies interviewed

Nielsen Areas	No. Outlets
North-West	2521
North-East	3511
Centre	3159
South	3902
Sardinia	894

Source: Our elaboration

Table 3 Coverage of distribution companies interviewed by sales area category

Sales Area Category	No. Outlets
Hypermarkets	289
Supermarkets	4892
Superette	5144*
Traditional stores	1164*
Discount stores	945
C&C	81

*no large scale retail

Source: Our elaboration

Table 4 STRESS and RSQ values for the evaluation of the validity of the MDS model and for the choose of the number of the dimensions

Objectives	Dimensions	STRESS	RSQ
Obj1= Reasons for introduction	4	0,076	0,983
Obj2= The consumers' reactions	4	0,101*	0,955
Obj3= Limiting factors	3	0,073	0,990
Obj4= Features for perception of the quality of the product	4	0,106*	0,957
Obj5= Competitors	2	0,064	0,992

*just above the limit established. The value was considered likewise acceptable

Source: Our elaboration

Table 5 Semantic Categorization: TFIDF index (%values; N=78; Objective 3: limiting factors)

Semantic Categories	Ftd (#)	Ftd (%)	Ft (#)	TFIDF
SC15 - Information/Communication	20	25,6	11	17,0
SC17 - Price	30	38,5	25	14,8
SC16 - Distribution Logistics	18	23,1	12	14,6
SC03 - Pressure from suppliers	9	11,5	8	8,9
SC14 - Awareness	9	11,5	9	8,4
SC06 - Nutrition/Health/Wellness Aspects	7	9,0	5	8,4
SC08 - Environmental Aspects	7	9,0	6	7,8
SC18 - Production/Transformation Structure	6	7,7	6	6,7
SC21 - Brand name of Manufacturer/ Transformer	3	3,8	1	5,7
SC09 - Pharmaceutical aspects / Intolerances / Celiac problems	4	5,1	3	5,7
SC19 - Culinary/Cultural/Geographic traditions	4	5,1	3	5,7
SC24 - Perception of added value/marginality	4	5,1	4	5,2
SC25 - Minor Cereals (Spelt)	3	3,8	3	4,2
SC23 - Product Aesthetic	2	2,6	2	3,2
SC10 - Interest due to specific need	2	2,6	2	3,2
SC22 - Product's geographical origin	2	2,6	2	3,2
SC01 - Widening breadth and depth of product range	1	1,3	1	1,9
SC20 - Organoleptic Aspects	1	1,3	1	1,9
SC13 - Curiosity	1	1,3	1	1,9
SC12 - Indifference	1	1,3	1	1,9
SC07 - Category Integration	1	1,3	1	1,9
SC11 - Interest in product's qualitative characteristics	1	1,3	1	1,9
SC05 - Polyvalence/Transversal/Versatility	1	1,3	1	1,9
SC02 - Demand by a growing consumer target group	1	1,3	1	1,9
Specific occurrences	138			
Total occurrences	849			
Intensity	16,3			

Key:

N= total number of responses which constitute the discussion

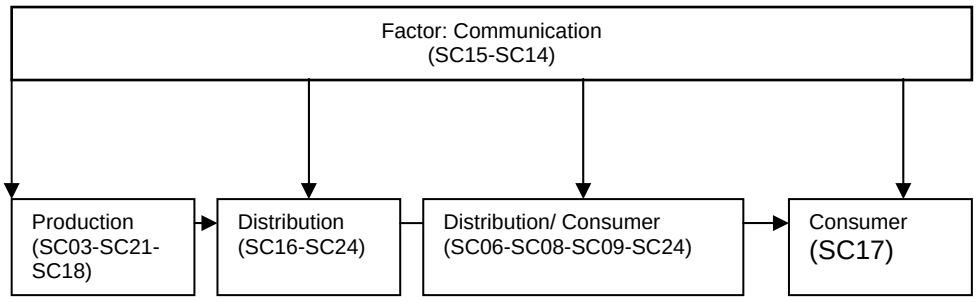
Ftd: number of times that a term which represents the specific semantic category is mentioned in the discussion

Ft: number of interventions in which a term representing a semantic category is mentioned

Source: Our Elaboration

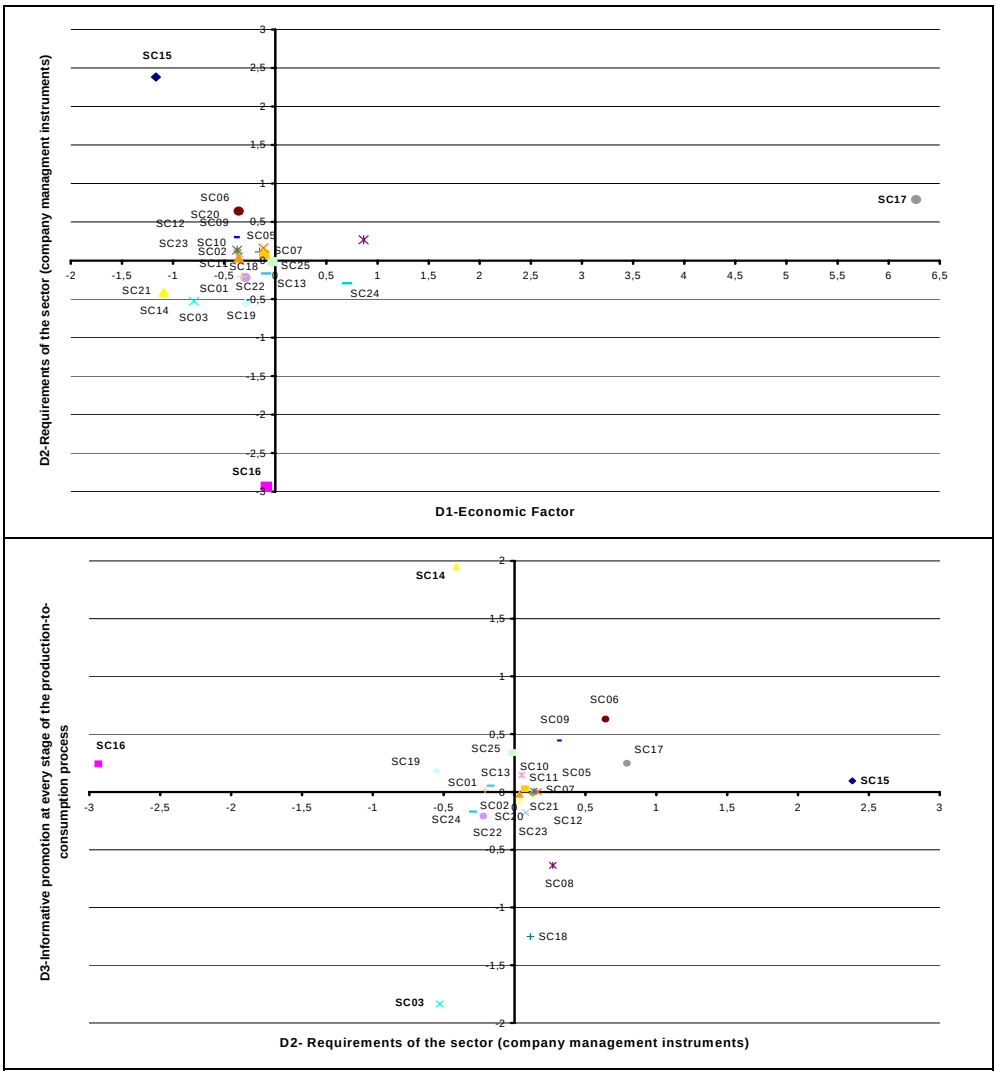
Graphs and Diagrams

Figure 1 Conceptual associations between certain semantic categories (Objective 3: limiting factors)



Source: Our Elaboration

Figure 2 **Positioning of semantic categories on the three dimensions considered (objective 3: limiting factors)**



Key:

SC01 - Widening breadth and depth of product range	SC13 - Curiosity
SC02 - Demand by a growing consumer target group	SC14 - Awareness
SC03 - Pressure from suppliers	SC15 - Information/Communication
SC05 - Polyvalence/Transversal/ Versatility	SC16 - Distribution Logistics
SC06 - Nutrition/Health/Wellness Aspects	SC17 - Price
SC07 - Category Integration	SC18 - Production/Transformation Structure
SC08 - Environmental Aspects	SC19 - Culinary/Cultural/Geographic traditions
SC09 - Pharmaceutical Aspects / Intolerances / Celiac problems	SC20 - Organoleptic aspects
SC10 - Interest due to specific need	SC21 - Brand name of Manufacturer/ Transformer
SC11 - Interest in product's qualitative characteristics	SC22 - Product's geographical origin
SC12 – Indifference	SC23 - Product Aesthetic
	SC24 - Perception of added value/marginality
	SC25 - Minor Cereals (Spelt)

Source: Our Elaboration

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