# Customers' Behaviour Analysis in Furniture Field: IKEA Case in the Northern part of Bari province 

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Between the $70^{\text {es }}$ and the $80^{\text {es }}$, the firm strategy - meant as the whole of choices to make in order to achieve long-term targets, or, as defined by SWOT Analysis, which one referred to during the economic boom years - gives way to the strategic planning and the strategic management. In such a reference picture, the present situation of IKEA store in Bari (Puglia, Italy) is included. This study target is, therefore, to determine what can be the reasons linked to a different purchase choice by a particular group of individuals on a Primary Market Area.

Keywords: strategic management, cluster analysis, primary market area.

JEL Classification: M20, M21,M31.

## Introduction

The continuous changes of the competitive scenario (as a result of the barrier absence) have as a direct consequence the promotion of subjects' behaviour transformation, together with the firm one, firms which, despite their dimensions, can increase their transactions and enlarge their turnover, if they have the capability to reinvent themselves.

The changes, which occurred in the relation both between enterprise and environment and between space and time, brought to an evolution of the firm strategy, which must succeed in expressing itself into a complex and unsettled environment (Usai, 2002), into decisions which allow, effectively
facing situations that are almost never predictable, to maintain the competitive advantage.

Between the 70'es and the 8o'es, the firm strategy - meant as the whole of choices to make in order to achieve long-term targets (Chandler, 1976), or, as defined by SWOT Analysis (Andrew, 1971), which one referred to during the economic boom years - gives way to the strategic planning (Ferrara, 1995) and the strategic management.

As a consequence, the firm strategy can no longer consist of preestablished decisions, but it must be dynamic (Porter, 1991) and adapt itself to the customers' changeable needs in order to hold and increase the market share.

Considering that, the present work analyzes the strategy adopted by IKEA and, in particular, by Bari store to evaluate the impact on the market shares, which it succeeded in gaining. For this purpose a direct survey is carried out, it segments into interviews to the firm top management and into giving out questionnaires to those consumers, who, even if residents in municipalities of Bari store primary commercial area (Fig. 1) ${ }^{1}$,


Figure 1: Primary Market Area
recorder a Market Share average lower of about 1.5 percentage points than the remaining municipalities (Fig. 2).

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Figure 2: Ten municipalities in PMA top buyers, values expressed in \%
The territory nearby the store must offer, in 60 minutes of time, a basin of a million of consumers (at the present in Bari it is of 1.5 million) and a potential market of purchase in furniture and furnishings from which a turnover of about 500 million is estimated, Bari 495 million (Puglia in cifre, 2010). In the whole evaluation, for IKEA, the purchasing power is less relevant than the consumers' basin, so that, in the primary market area, it results 20\% lower than the Italian average (Osservatorio Puglia, 2010).

It is evident, as a matter of fact, that in order to carry out an effective distribution policy is necessary to know the costumers' purchase habits and how often they go to a certain store ( in Fig. 3) ${ }^{2}$.


Figure 3: Customers coming from PMA, values in \% expressed by colours

[^1]This analysis target is to determine what are the reasons which drive the Northern Bari province consumers not to go to IKEA store to buy their own furniture and furnishings.

Knowing and determining what are or what can be the factors which act influencing the customers' purchase decisions is extremely useful to put forward a marketing strategy profitable for the business. The consumer's behaviour study is based on the definition of aspects and dimensions relevant in the decisional process of product or service choice, from the birth of need to the action of purchasing or not; in such a way it will be possible to determine what provokes satisfaction or dissatisfaction to the consumers.

The more the products and services offered by the firm will be close to the effective and potential customers (and the prices proposed are those they can afford) the more the consumers' satisfaction will be higher.

The implementation of a commercial strategy driven by the consumer's needs will permit to increase the demand of the offered products increasing, in such a way, the market share and, therefore, the firm profits.

## The consumer's behaviour: theoretical aspects

The purchase decisions of any consumer must be analyzed according to a multidisciplinary approach which goes from the economics to the psychology, from the sociology to the marketing. The existence of a need leads to the search for the product, which, being recognised as the one that can satisfy the said need, gives profits.

According to the theory expressed by marginalists, the consumers are rational individuals aimed at the maximisation of their total utility and, therefore, considering the budget constraint, that is to say the limit of the expenses that can be borne, knowing the income and the goods prices, they make choices to achieve this target. The levelling of the considered marginal utilities represents the balanced condition of consumers who are not driven to modify their own decisions if the starting conditions do not change, that is to say, likes, income or the considered goods prices. The demand of a product, in a specific moment and on a specific market, is, therefore, in function of the price, likes, income, prices of other goods which replaced it or which are complementary to it. It is evident that, considering the Decreasing Marginal Utilities Law, when the product price varies, the required quantity of it varies in an indirect way. It is, however, true that being each consumer different from
another, in the demand collective function, the demanders' reactivity must be measured to the change of each of the considered variables. In the neoclassical theory the changes in the consumers' behaviour are studied according to an analysis of comparative statistics, in the sense that the consumer's choice is considered as a silent choice when one of the variables modifies itself, even if the others do not change. However if it is easy to understand the reasons which persuade a subject to change his/her choices in different time, with different income and prices, the behaviour changes which occur in different course of time, but with the same income and prices are difficult to understand. It is evident the limit of the classical theory which analyzes the consumers' behaviour always considering their likes unchanging while they are, on the contrary, changeable. The reasons which persuade consumers to make a choice instead of another are many: conscious and unconscious, exogenous and endogenous reasons. As a consequence consumers do not always carry out their purchase on the basis of the pure utilitarian calculation, but they are influenced, for example, by an emulative spirit (Veblen, 1899), which, allows subjects, by means of a given product purchase to show those they consider inferiors their own superiority, because, not being pleased by their own social class, they aim at being accepted by an upper one. The purchased product becomes, in such a way, a status symbol. In other words, the consumers' behaviour is interdependent from that of the others forming their social group and they tends to show (Duesenberry,1949) they can stand a comparison.

The consumption loses the connotation of a action aimed at obtaining the biggest possible utility, to become, first, a tool belonging to a certain social group and, subsequently, a distinctive tool.

If the inspiration and emulation are considered to have as a direct consequence both the increase of qualitatively superior product consumption, and the abstention from the low cost product purchase, the existence of a direct relationship between the demanded quantity and its price must be recognised (Busacca, 1990).

The "sign theory" (Baudrillard,1968) is based on the behaviour of the subjects who try, through the purchase of certain goods and/or services. The consumption choices form a set of signs that, reflecting the social economic context evolution, is realised, by increasing the welfare level, through acquisitions which are not quantitatively, but qualitatively superior.

The belonging to a certain social status, as a matter of fact, does not derive so from the possession of single goods as from the employment
conditions of particular sets of products. Every subject is induced to adopt symbols which are evidence of the differentiation from certain groups and of the belonging to others. Consequently, the consumption becomes language and symbol communication tool and it takes the role of social differentiation based on the choice of a life style.

Moreover it is necessary to say that, since time ago, the replacement takes place more among products which are similar and differentiated to each other than among completely different products, and it is more of an intra industrial type than of an inter industrial one. The product differentiation is the base of the existence of demand functions with a negative pendency (Sraffa, 1926) and, above all, is important for the product and price decisions, and for the strategies of sale applied by firms which work in monopolistic concurrence markets (Chamberlin, 1933). The demand is function, not only of the consumers' income, but also of the style of product, of the additional services and of the peculiar sale strategy performed by the seller. The demand can vary also by changing the policies of price, production and sale of firms working in the same sectors and/or in other sectors. The differentiation is real if the products have their own peculiarity, that is to say when differences exist in the used input, as well as in the localisation of the firm which determines for the consumer the product convenience in terms of accessibility and/or in the service offered by the firm. The differentiation is fictitious when the products are basically exactly alike, but the consumer, through the advertisement³, the diversity in the packet, in the design, in the trademark, is convinced they are dissimilar. The marketing, direct to the individualisation of strategies which allow the firms to enlarge their own market shares, must take into consideration the consumer's behaviour. The purchase decisions are, as a matter of fact, connected not only to the subject's personality, but also to his/her interaction with the environment and the society where he/she lived. Considering that the consumers' universe consists of complex subjects, one different from another, the efficacy of marketing actions is based on the careful analysis of the consumer's behaviour. It represents 'the starting point - to define the policies of product, price, communication, distribution and sale - of the whole

[^2]marketing strategies" (Dalli-Romani,2000).

## The studied case

IKEA, in order to realise marketing strategies, aimed at enlarging its market share, uses detailed analyses of consumers' behaviour. The reasons why consumers do not buy furniture and furnishings in IKEA are singled out through a domestic survey, Brand Capital 2011 (aimed at evaluating the brand credibility and knowledge in the area), performed phoning 300 consumers, chosen at random among the inhabitants of the primary market area. Each surveyed consumer can give more than an answer and the whole analysis (Fig. 4) highlights that the purchase dissuasion at Bari store is due, for the $22 \%$, to the great number of visitors in the store (store too busy) and, for the $16 \%$ to the difficulties to get to IKEA (getting to IKEA). These difficulties, retraceable both in the geographical distance and in traffic congestion, have for the locals an importance of 8 percentage points higher than the whole of the Italian consumers.


Figure 4: Source: Brand Capital 2011, IKEA Bari. Why do I not purchase IKEA products?

In order to better determine the reasons why IKEA missed its strategic targets in this area of Apulia, a sample of potential consumers was asked to fill a questionnaire. The survey was carried out inside Molfetta Supermarket, Cinemas and Mall between September $9^{\text {th }} 2011$ and September $18^{\text {th }} 2011$.

Of 303 filled questionnaires, 252 were taken into consideration: they were of those who live in municipalities in the Northern part of Bari area, in details $16 \%$ coming from Molfetta, $13 \%$ from Bisceglie, $8 \%$ from Trani and $7 \%$ from Barletta (Fig.2).


Figure 5: Polar diagram of the surveyed consumers according to their residence.

The 252 subjects are composed of $52 \%$ of women and $48 \%$ of men, the $9 \%$ is in between $18-24$ years old, the $60 \%$ between $25-44$, while the $31 \%$ is over 45 years old. The interviewees are composed of $13 \%$ of graduates, $47 \%$ of diploma holders while the remaining $40 \%$ does not have any diploma. As regards their occupation, the $61 \%$ has a job, the $28 \%$ is unemployed, the $6 \%$ is a student and the $5 \%$ is retired. Among the 252 subjects the $84 \%$ bought from IKEA at least once, while the $16 \%$ has never done it.
It is possible to differ the customers in 2 categories:

- Loyal customers: 81 subjects, equal to the $34 \%$ of the surveyed consumer totality, buy furniture and furnishings exclusively from IKEA;
- Occasional buyers: 154 individuals, equal to the 66\%, buy from IKEA, even if not exclusively, mainly furnishings.


## Analysis of the 'loyal' IKEA customers

The $34 \%$ of the surveyed consumers belongs to the set of the loyal customers, as they purchase exclusively or mainly IKEA products, considering them satisfactory as regards the quality/price ratio. The $35 \%$ of these subjects is between 25-34 years old, has a high standard of education, being composed of $14 \%$ graduates and the $46 \%$ of diploma holders.


Figure 6: Main purchase reasons by IKEA "loyal" customers.

The IKEA customer's profile belongs, therefore, to a middle-high class from a cultural and income point of view. This feature is confirmed also for Bari store, which has among his customers a share of graduates higher than the Italian average and with a middle income which, though it is lower than the one of the Italian customers referred to the primary market area, is almost equal to the one of the Northern Italian customers (Martucci, Schirone, Servodio, 2011). It does not seem useless to wonder what is the reason which induces the consumers of middle-high socio-cultural level to purchase the furniture for their own house, place of the highest expression of the social status, in a shopping centre well-known to have the lowest prices among the competitors in this sector (De Pauli, 2004). Truly, the post-modern consumer, always more sensitive to the quality/price ratio, is not so careful to support the lowest possible expense as to support the best one. Statistics reports an increase of the so-called bargain minded people, that is to say of those who look for good deals, evaluating the perceptible quality and surrounding himself/herself of products that more of a status symbol represent a smart symbol as to guarantee a social recognition of common sense and taste (Fabris, 2003).

In Apulia, moreover, the $6 \%$ of the supported expenses is monthly destined to the furniture, a value lightly higher than the Italian average of the $5.5 \%$ (ISTAT, 2009). This difference can be explained considering that the southern consumers, generally speaking, and the Apulian ones, in particular, think it is important to take care of both themselves and their house. To confirm what above-mentioned, in the only province of Bari, 140 million of Euros have been bound to the purchase of kitchen furniture (C.I.S.L., 2009). Among the Apulian customers' peculiarities it has been noticed that they do not belong, as
in the rest of Italy and in the Northern Europe, to the typology of new couples or singles, but they are in their fifties, mainly married, who spent an average of 2,200 Euros per year to furnish their second house or their children's house (Fig.7).


Figure 7: Annual expense destined to the furniture and furnishings purchased by a married couple in their fifties with children of 20 and over living with them in the top cities of the Primary Market Areas.

Source: our IKEA data processing

A good number of IKEA customers purchases mainly both furniture and furnishings ( $61 \%$ ) while the $35 \%$ of its customers purchase only furnishings.


Figure 8: Typology of products purchased by IKEA loyal customers.

The most favourite furnishing styles are the "Popular Modern Ethnic" style (24\%) and the "Popular Modern Contemporary" style (21\%).


Figure 9: Favourite style of IKEA loyal customers.

## IKEA occasional customer analysis

The IKEA occasional customers do not buy exclusively in IKEA. Their profile, differently from the loyal customers' profile, is characterised from people who are between 35 and 44 years old (equal to the $42 \%$ ), with a less high educational standard composed of the $12 \%$ of graduates and of the $47 \%$ of diploma holders.

In comparison with the IKEA "loyal" customers, the occasional customers buy mainly furnishings (65\%), while the $33 \%$ of them buy both furnishings and furniture.


Figure 10: Typology of products purchased by IKEA occasional customers.

The most favourite furnishing style are, as for the IKEA loyal customers, the "Popular Modern Ethnic" style (25\%) and the "Popular Modern Contemporary" style (17\%).


Figure 11: Favourite style of IKEA loyal customers.

Not purchasing only from IKEA, the occasional customers apply also to other competitors in the geographical area near their residence; in particular the $41 \%$ name reliable shops located in their neighbourhood, while the $28 \%$ applies to other furniture factories ( $28 \%$ ). If among these occasional customers the $17 \%$ does not have any particular preference in the purchase, the $6 \%$ carefully pays attention to the cheapness.


Figure 12: Main IKEA competitors for the occasional customers.

## IKEA non-customers analysis.

The set of the "IKEA non-customers" is composed of people who are between the 35 and 44 years old (equal to the $32 \%$ ), with an even less high educational standard composed of the $12 \%$ of graduates and of the $51 \%$ of diploma holders. The main reasons which drive such consumers not to buy in an IKEA store can be attributed to the remarkable distance of the store from home ( $67 \%$ of the surveyed consumers) and in a small part to the offered
product non-conformity to the family needs ( $11 \%$ of the surveyed consumers) or to the presence of another shopping centre ( $14 \%$ of the surveyed consumers).


Figure 13: Main reasons of the purchase default by IKEA "non-customers".

The main IKEA competitors in this sector of IKEA non-consumers are mostly reliable shops located in the residence area ( $52 \%$ ) or artisans ( $15 \%$ ). The $26 \%$ of the surveyed consumers, on the contrary, does not have particular preference in the choice of the shops where to purchase furniture or furnishings.


Figure 14: Main IKEA competitors for the non-customers.

## The surveyed consumers' profile identificatio

## Cluster analysis using the Twostep method

In order to define the surveyed consumers' profiles, a clustering procedure was employed. The cluster analysis is highly valuable as it provides clusters different one from another (or heterogeneous), each consisting of units with a high degree of natural association (Perchinunno, Schirone 2012).

Differing approaches to cluster analysis share the common need to define a matrix of dissimilarity or distance between the $n$ pairs of observations, which represents the point which each algorithm is generated from. Most recent studies in the field of data mining are directed towards the identification of algorithms able to manage both very large data sets as well as data sets consisting of mixed variables (Azzalini, Scarpa, 2004, Billard J. A. and Diday E. 2006, Liu 2007).

A specific cluster analysis technique used for categorical data is often referred to as the TwoStep. This is an extension of the distance measures employed by Banfield and Raftery (Banfield, Raftery, 1993), introduced for data with continuous attributes.

The TwoStep algorithm automatically determines the optimal number of clusters, although it allows for establishing the required number of clusters. The TwoStep procedure, highly efficient with large data sets, is an algorithm of scalar cluster analysis and is able to simultaneously treat variables or categorical and continuous attributes. It is achieved through two steps:

1. in the first step, defined as pre-cluster, records are pre-classified into a number of small sub-clusters;
2. in the second step the sub-clusters (generated in the first step) are regrouped into a number of clusters that maximizes the BIC (Bayesion Information Criterion).

The pre-cluster is a segmentation process in which the results of the algorithm can result in an initial partition of the space where the variables are defined (taking into account the order of their importance) or in the distance between the cases. The representation of such a partition is a tree referred to as the Cluster Features Tree defined by levels of nodes (Zhang, Ramakrishnon, Livny, 1996). All cases, starting from the root node, are channelled through other nodes until becoming terminal nodes inasmuch as they consist of cases that are particularly close (within a distance threshold). In the second step the sub-clusters produced in the pre-clusters are further classified. In this second stage, given the modest dimension, traditional methods of clustering may prove effective.

The TwoStep considers the optimal partition through the use of the Bayesian Information Criterion (BIC) that for k cluster is defined as:
$B I C_{K}=-2 l_{k}+r_{k} \log n$
where $r_{k}$ is the number of independent parameters, and:

is the function of log-likelihood, for the step with $k$ clusters, which can be interpreted as the dispersion within the clusters. This, furthermore, represents the entropy within the k cluster in the case in which they are considered the only categorical variables(see analysis of $\sum_{v}$ below).

The TwoStep joins the clusters at each iteration until all clusters are incorporated into one and, unlike hierarchical aggregative techniques, uses a statistical model. The model assumes that the continuous variables $x_{j}(j=1,2, \ldots$ ,p) are, within the $\mathrm{i}^{\text {th }}$ cluster, distributed independently and normally with $\mathrm{i}_{\mathrm{j}} \Sigma$ mean and 2 öij ¿variance, assuming that the categorical variables $a_{j}$ are, within the $\mathrm{i}^{\text {th }}$ cluster, independent and multinomially distributed with probability $i_{j l}$ $\Sigma$, where $\left(j_{1}\right)$ indicates the $l^{\text {th }}$ category $(l=1,2, \ldots$,$) of the mutable aj (j=1,2, \ldots, p)$.

As in the hierarchical model, clusters with the shortest distance $d(i, s)$ are grouped at each step.

## The employed variables and the identified profiles

The following variables were used in order to produce surveyed consumers' profiles: type of customer ("loyal" IKEA customer, "occasional" IKEA customer, non-IKEA customer), age groups, gender, educational level, occupation, place of residence, IKEA purchased products, motivation for purchase, motivation for non-purchase, preferred style.

The TwoStep algorithm automatically determined an optimal number equal to 2 clusters related to IKEA customers and non-IKEA customers; at a successive stage the number of pre-defined clusters was determined as 3 . Analysis was carried out, therefore, based on the profiles of the 3 clusters according to the different characteristics of each, illustrating those considered as most relevant to the present work.

In particular, with regards to the type of consumer it should be noted that:

[^3]- Cluster 3 is characterized by "loyal IKEA customers";
- Cluster 2 is characterized by "occasional" IKEA customers.


Figure 15: Description of clusters based on consumer type.

In terms of products purchased by IKEA customers, it is evident that those belonging to cluster 3 tend to purchase IKEA furnishings rather than furniture, as is the case for those belonging to cluster 2. Conversely, those belonging to cluster 1 were obviously unable to respond as "non-IKEA customers".


Figure 16: Description of clusters based on type of products purchased at IKEA.

As regards to the preferred IKEA style, it is evident that those belonging to clusters 2 and 3 tend to prefer the "Scandinavian modern style", the "Swedish country" style or the "Rustic" one, while those of cluster 1 (non clients) prefer,
based on products viewed in the catalogue, the "Popular modern classic" style.


Figure 17: Description of clusters based on preferred IKEA style.

The final aspect analysed regards the origin of the surveyed people (place of residence) and their placement in different clusters. It is evident, and of particular interest, to highlight that those belonging to cluster 1 are also those residing furthest away from the IKEA store (Bari) or, specifically, within the municipalities of Lesina, Manfredonia, Margherita di Savoia, Trinitapoli and Ruvo di Puglia.


Figure 18: Description of clusters on the basis of the surveyed people's municipality of residence.

This finding is of particular interest as it supports the hypothesis that the main factor determining classification as non-customers is the "distance"
of the IKEA store from places of residence (Fig. 18).


Figure 19: Map of municipalities of Primary Market Area far from IKEA Store of Bari.

## Conclusions

For the differentiated products, consumers formulate a question based on product characteristics, more than on the product as such. This can be defined on the basis of a complete set of features, each of them satisfying objectively a consumer's need. As a consequence the indifference curves are not meant so as a preference expression in the space of products, but as their features, and, therefore, each consumer is located in a specific point of the space of the defined features.

It is clear that if the differentiation is vertical, the customer prefers the product which has a higher quality, in the horizontal one, where none of the goods is objectively better than the other, the distance in the space has a predominant role. As a matter of fact it is possible that the consumer prefers to pay for a certain product a higher price in a nearer store rather than meet a lower expense in a further store (Hotelling, 1929).

The distance is for consumers a disutility, which confers a market power to the firms, when acquiring goods from a distant firm drives the consumer to meet transportation expenses higher than the saving deriving from the price difference between the firms. Consumers chose the store even on the basis of
the "transportation cost" they have to meet to get to a store, as the eventual positive effect deriving from the small price reductions of the offered product is reduced.

Goods become effectively replaceable when there are no transportation expenses; that is to say that the customer switching is easier to use for the firm if consumers do not incur in important transportation expenses, if the "value for time" is perceived; as a consequence the adoptable strategy will aim at "the cut of the geographical distance": at promoting transport expense reductions; at reimbursing the fuel expenses; or, moreover, at promoting the quality/price ratio which would justify the transfer costs. This last statement could effectively justify the expenses to meet for the transfer. Indeed, aiming at a higher perception of the product quality means to increase the value for money, that is to say, increase the utility level deriving from the purchase and from every amount of money spent. The good quality/price ratio, therefore, is not based only on the cheapness of the expenses, but also on the efficacy and efficiency which derives from the purchase. It will be appropriate to adopt marketing strategies, which reduce this gap. IKEA has already started to do that, appealing to the non-customers toward Bari store hoping to convince them, with proper offers, to modify their behavior.

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[^0]:    1 It refers to a geographical area near the store with a consumers' flux between the $50 \%$ and the $70 \%$ of the total amount.

[^1]:    2 The geographical areas from which the majority of customers come are marked with more intense colours: the survey was carried out through the postal code required by Bari store cashiers

[^2]:    3 In firms which offer differentiated products, the sale expenses - regarding the commercial penetration and, therefore, also the advertisement ones - do not modify the individualization of the quantity of balance, which is always corresponding to the marginalistic rule of the equality between the marginal income and the marginal cost, but they increase the average production costs and diminish the profits. The investment in advertisement is a sunk cost (Sutton,1991), as considerable budgets form a barrier to the potential competitors' entrance, discouraging even the intention to enter and the formulation of positive expectations of profit deriving by the entrance.

[^3]:    - Cluster 1 is mainly characterized by "non-IKEA customers";

