FACTORS DRIVING CONSUMER ATTITUDE AND PURCHASE INTENTION TOWARDS SPORTING FIREARMS IN ITALY

TONINO PENCARELLI , BARBARA FRANCIONI, LINDA GABBIANELLI
Carlo Bo University of Urbino, Italy

Received: April 15, 2013 Accepted: October 7, 2013 Online Published: October 14, 2013

Abstract

The objectives of the paper are twofold: the first one is to identify the critical variables that influence the process of buying firearms according to the opinion of Italian hunters and retailers. The second objective is to try to identify hunters' groups with similar generic characteristics and similar behavior in purchasing a firearm for the purpose of understanding customers' behavior.
In order to achieve the first objective we have interviewed 455 Italian hunters and 200 firearms retailers from May to September 2011.
Results show that according to hunters the main factors influencing firearm purchases are manageability of the firearms and competence of the retailer; while according to retailers the key purchasing factors are price of the firearms and the image of the producer. The survey reveals that, in spite of these different perceptions, retailers know their customers' behavior and preferences fairly well. However, the study also suggests that firearms retailers under valuate the weight of the functional characteristics of the product and the hunters' competences and autonomy in decision-making during the purchasing process. In order to achieve the second objective of the study, we perform a segmentation through a cluster analysis and results reveal that there are six main hunter groups named the recommended, the conservative, the innovative, the informed, the stingy and the maniac.
The Italian firearms producers could evaluate whether their current competitive strategy is exploiting these potential market spaces.

Keywords Consumer behaviour; sporting firearms sector; Italian hunters and firearms retailers.

1. Introduction

One of the priorities that a firm should consider in order to achieve the objective of creating firm value is to identify a target of customers and understand their needs and attitudes in order to project, to produce, to communicate and to deliver customer value. It's therefore important that a company identifies which are the main factors that affect the purchase behavior of their customers. Consumer purchase intention is the decision making process used by consumers relating to a market deal in the form of purchase of products and services from one seller or group of sellers. Consumers go through different decision criteria when making any purchase decision like brand, prices, quality, performance, features, convenience and user friendliness

(Khan, Ghauri & Majeed, 2012). Purchase intention can be defined as individual's intention to buy a specific brand which has chosen after certain evaluations; the corporate and product brand image is one of the most important variables which measure the consumers' purchase intention. (Laroche, Kim & Zhou, 1996, Laroche & Sadokierski, 1994, MacKenzie, Lutz & Belch, 1986).

Researchers have noted that for the competitive success, managers of firms should have a good knowledge of their consumers', understanding how they develop relationship or interaction with brands and how they participate in brand communities in their own lives (Esch, Tobias, Bernd & Patrick, 2006).

Studies (Shukla, 2011; Bian & Forsythe, 2012; Aghekyan-Simonian, Forsythe, Kwon & Chattaraman, 2012; Chen, Hsu & Lin, 2010; Chiang & Dholakia, 2003; Wang, Li, Barnes & Ahn, 2012) about factors driving the customer's purchase intention have been applied to a wide range of contexts (automotive, food, luxury goods, e-commerce and so on) but no study was focused on firearms. This is the reason why we investigate which are the factors driving consumers' attitudes and purchase behavior towards sporting firearms.

In particular, we analyze the Italian firearms industry as it's a very important productive sector in terms of the turnover and value added generated in the Italian economy. Moreover, this sector is a part of the precision mechanics industry that represents the excellence of Made in Italy at a global level (Musso, Cioppi & Francioni, 2012).

The first objective of this paper is to identify the critical variables that influence the process of buying firearms. According to the literature background, on the basis of the following discussion, this paper attempts to show how brand image and product features, interpersonal influence and service quality influence the hunters' purchase intention. The analysis was carried out identifying the critical factors in firearm purchasing according to hunters and retailers. The second objective is to try to identify, through a segmentation realized by the cluster analysis, hunter groups with similar generic characteristics and similar behavior in purchasing a firearm.

The article begins with a section presenting the theoretical background. Subsequent section describes our research method and design. Next, the obtained findings are showed. Finally, a concluding section with a discussion of the results, the theoretical and managerial implications and future research direction are presented.

2. Theoretical background

In this section we discuss the most important factors affecting Italian sporting hunters' purchase intention, dividing them into four categories:

1. the brand image and product features (image of the producer, aesthetics and ergonomics, cheapness, manageability, ease of cleaning and maintenance, innovation, tradition);
2. the interpersonal influence (word-of-mouth from friends and acquaintances, degree of diffusion among hunter groups)
3. factors related to the retailer image and the service quality (competence and quality offered by the retailer, availability of the nearest retailer).

2.1. Brand image and product features

Several researchers (Shukla, 2011; Thakor & Kohli, 1996) concentrated their attention on different aspects of brand that can influence purchase, like brand origin, brand equity and brand image. With specific reference to brand image, Keller (1993, p.3) defined it as ''perceptions about a brand as reflected by the brand associations held in consumer memory'', while Aaker (1996, p. 71) stated that brand image is "how a brand is perceived by consumers". Brand image generally comprehends the product's name, its main physical features and appearance and its main functions (Ataman & Ülengin, 2003). "Brand performance links to its intrinsic properties and to how consumers perceive the fit between the brand and their functional needs (features, quality of product, services related to the brand, style and design, price)". (Godey, Pederzoli, Ayello et al, 2012)

Hankinson (2007) argues that "Typically, these brand associations – held in consumer memory about brand – have been classified into two categories: functional attributes, which are the tangible features of a product or service; and emotional/symbolic attributes, which are the intangible features that meet consumer needs for social approval, personal expression or self-esteem. Other authors add a third category: experimental attributes, which relate to how it feels to use a product or service and satisfy internally generated needs for stimulation and variety".

The product attributes, the benefits/consequences of using a brand, and brand personality are the three key components of the brand image (Plummer, 2000, 1985).

According to the definition of brand image above, as it is what is perceived by customers and is formed through both the tangible and intangible characteristics of the product, in this study we associate the brand image with the product features.

A number of studies have revealed that brand image is positively related with consumer's purchase intention (Keller, 1993; Del Rio, Vazquez & Iglesias, 2001), as "the more favourable the brand image is, the more positive is the attitude toward the branded product and its attributes" (Aghekyan-Simonian, Forsythe, Kwon & Chattaraman, 2012).

Moreover, according to several authors (Aaker & Keller, 1990; Keller, 1993 Park & Srinivasan, 1994) a strong brand image usually helps to create a brand's position, build a brand's uniqueness compared to competitors, improved the performance and, consequently, play an important role in establishing long-term brand equity (Bian & Moutinho, 2011).

2.2. Interpersonal influence

A considerable amount of literature has been published on interpersonal influence on individual's consumption behaviour (Shukla, 2011¸ Kropp, Lavack, & Silvera, 1999; Mourali, Laroche, & Pons, 2005).

In 1989, Bearden and colleagues, attempting to develop a scale to measure consumer susceptibility to interpersonal influence, identified two types of influences, namely informational interpersonal influences and normative interpersonal influences (Shukla, 2011). Informational influence is related to potential consumer's tendency to receive information from others to increase knowledge, while normative influences includes utilitarian influence, that can be described as the individual attempt to follow the expectation of others for obtaining approval, and value expressive influence, that is the people's need to improve his or her self-concept through referent identification (Bearden, Netemeyer, & Teal, 1989; Mourali, Laroche & Pons, 2005).

2.3. Factors related to the retailer image and service quality

Service quality can be considered as one of the most investigated topics in service marketing (Fisk, Brown & Bitner, 1993; Gronroos, 2010). Consequently, during the years several authors attempted to give their own definition, like Parasuraman et al. (1985), who defined service quality as the overall evaluation attitude mainly based on the discrepancy between consumers' perceptions and their expectation of what is actually delivered (Wu, Yeh, & Hsiao, 2011) or Chakrabarty and colleagues (2007, p.3), who described it as "the conformance to customer requirements in the delivery of a service".

Several studies (Cronin & Taylor, 1992; Sullivan & Walstrom, 2001; Wu et al. 2011) have revealed that service quality have a positive influence on purchase intentions. Particularly, Cronin and Taylor (1992) showed that this strong influence of service quality on customers' behavioural intentions can be found in several sectors, especially in that of services, such as banking, pest control, dry cleaning, and fast food (Chakrabarty, Whitten & Green, 2007).

3. Methodology

On the basis of previous discussion, this paper attempts to analyze how brand image, interpersonal influence and service quality influence the hunters purchase intentions.

Moreover, this study wants to create a segmentation on the basis of the hunters' characteristics and attitudes towards firearms' purchase.

As said in the introduction, the first objective of the research is to identify factors driving consumer attitude and purchase intention towards sporting firearms and the second objective is to identify some hunters groups with similar generic characteristics and similar behavior in purchasing a firearm. In order to achieve the first objective we have interviewed two groups of respondents (455 hunters and 200 firearms retailers) in two different time periods through the administration of the questionnaire. In the case of hunters group we have administered a face-to-face questionnaire to 455 hunters using an intercept survey technique. The hunters were interviewed, considering the age distribution of respondents, during the Rome trade fair in May 2011. In the retails case, in the period from July to September 2011 we carried out telephone interviews with 200 retailers selected using a stratified reasoned sampling which took into account a geographically homogeneous distribution of respondents.[1] The questionnaires were designed in collaboration with the management of important firearms' brands. The questionnaires were composed of two parts: the first part contained requests for information about interviewees' demographic characteristics and the second part was focused on measurement scale regarding factors influencing the purchase behaviour, adopting a 5-point Likert scale where 1 was "not important" and 5 was "very important".

Therefore, in the case of the 455 Italian hunters interviewed we decided to eliminate all questionnaires not completely filled, remaining with 403 questionnaires. Table 1 summarizes the primary characteristics of the sample.

The data of table 1 show that 99.8% of respondents were male. The age of respondents is almost equally distributed into three categories: 27 to 40 years (22.8%), 41 to 50 years (23.1%) and 51 to 60 years (25.6%).With regard to the area of origin it turns out that 79.4% of respondents come from Central Italy: this non-distribution in the different areas is due to the fact that the interviewees were selected during a trade fair held in Rome and addressed to central Italian customers. The remaining sample analyzed was composed of 2% which resides in Northern Italy and 18.6% in the South.

Most hunters interviewed were workers (35%) and professional people (20.8) while 13.9% were employees and 10.2% retired. Finally, the remaining 4.4% were students (1.7%) or company managers (2.7%).

An interesting datum is that almost 70% of the hunters interviewed hold between 2 and 7 firearms while 7% of respondent posses more than 10 arms. This implies that Italian hunters could be very expert consumers.

---

[1]According to Musso, Cioppi and Francioni (2012), in Italy the number of gun shops amount to 1.200, while Italian hunters are 751.876. The sample of retailers is highly significant while the sample of hunters of affected limit of geographical distribution as they are concentrated in the center of Italy.

In the second case, 200 retailers were surveyed, of which 68 (34.0 per cent) were located in Northern Italy, 59 (29.5 per cent) in Southern Italy and 73 (36.5 per cent) in the Centre of Italy; so this means that it is a stratified sample that tries to take into account the geographic distribution of retailers.

We decided to conduct two parallel surveys in order to compare the different perception of the critical variables that influence the process of buying firearms according to the opinion of Italian hunters and retailers.

Table 1 – Main characteristics of the hunters sample

	FREQUENCY	*PERCENT*
Gender		
Man	402	99.8
Woman	1	0.2
Age		
18-26	54	13.4
27-40	92	22.8
41-50	93	23.1
51-60	103	25.6
More than 60 years	61	15.1
Origin		
Northern Italy	8	2.0
Southern Italy	320	79.4
Centre of Italy	75	18.6
Job		
Office worker	56	13.9
Workman	141	35.0
Student	7	1.7
Professional - freelancer	84	20.8
Director - manager	11	2.7
Retired	41	10.2
Other	63	15.6
Number of firearms owned		
0	0	0
1	25	6.2
2	62	15.5
3	77	19.0
4	60	15.0
5	55	13.7
6	35	8.7
7	22	5.5
8	11	2.7
9	15	3.7
10	12	3.0
More than 10	28	7.0

4. Results and discussion

4.1. Comparison between hunters and retailers perception

In order to evaluate the different perception of the two samples, we adopted a five point Likert scale. In detail, respondents were asked to provide a score ranging from 1 (no importance) to 5 (high importance). The mean of the Likert scale responses was then compared to a midpoint of 2.5 to determine their significance. The considered features influencing consumer firearms purchasing are:

1. aesthetics and ergonomics, that means product design and the capacity of the firearms to adapt to the person's physiognomy;
2. cheapness;
3. manageability, namely the ease of handling the firearm;
4. ease of cleaning and maintenance of the firearm;
5. innovation, in terms of materials, weight, etc. built-in firearm;
6. availability of the nearest retailer;
7. image of the producer;
8. degree of diffusion among hunter groups that is, how many hunters belonging to the same group use the same firearm;
9. tradition;
10. word-of-mouth from friends and acquaintances;
11. competence and quality offered by the retailer.

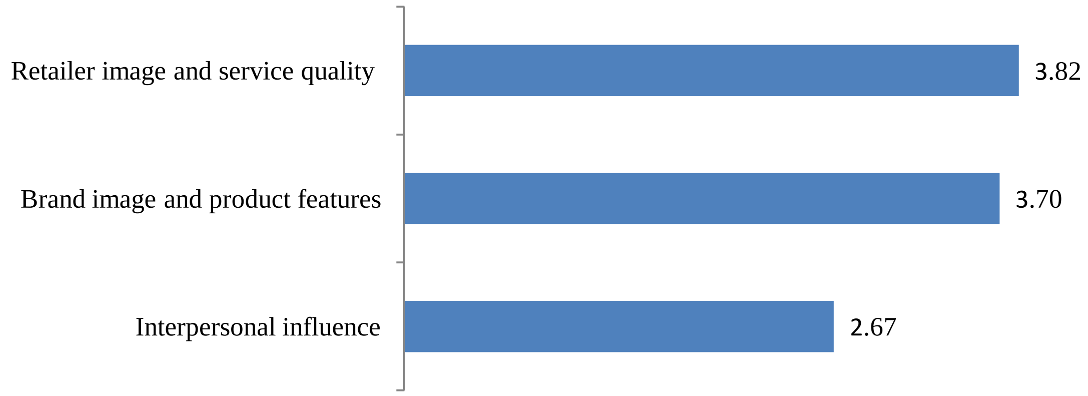
These features are divided into three groups of variables, identified in the previous literature background. In particular, the group brand image and product features, conceived as customers perception based on the tangible and intangible characteristics of the product (Godey, Pederzoli, Aiello & al, 2012; Hankinson, 2007; Ataman & Ülengin, 2003) include the image of the producer, the aesthetics and the ergonomics, the cheapness, the manageability, the ease of cleaning and maintenance, the innovation and the tradition. The group interpersonal influence comprehends the word-of-mouth from friends and acquaintances and the degree of diffusion among hunter groups.

The last group of factors related to the retailer image and the service quality includes the competence and quality offered by the retailer and the availability of the nearest retailer.

Starting from the perspective of hunters (Figure 1), the most important groups of factors in the firearm purchasing process are the retailer image and its service quality (mean 3.82). Within this large group of factors, competence and quality offered by the retailer received a score of 4.01 and the availability of the nearest retailer received a score of 3.64. The second most important group of factors is the brand image and product features, obtaining a mean score of 3.70. The most important factors included in this group are the ease of cleaning and maintenance (4.00), the cheapness (3.82) and the image of the producer (3.72), followed by the manageability (mean 4.61). The group named interpersonal influence is the less crucial in the hunter perception, obtaining a mean score of 2.67. The word-of-mouth from friends and acquaintances and the degree of diffusion among hunter groups, belonging to the interpersonal influence group, receive a score of respectively 2.72 and 2.62.

Considering each feature, the most important in the firearm purchasing process (Figure 2) is manageability (mean 4.61), competence and quality offered by the retailer (mean 4.01), ease of cleaning and maintenance (4.00), cheapness (3.82), image of the producer (3.72), followed by the availability of the nearest retailer (3.64), aesthetics and ergonomics (3.30) and tradition (3.28). On the contrary, the less important characteristics are innovation (3.17), word-of-mouth from friends and acquaintances (2.72) and degree of diffusion among hunter groups (2.62).

Figure 1 – Group of factors considered in the hunters' firearm purchasing process

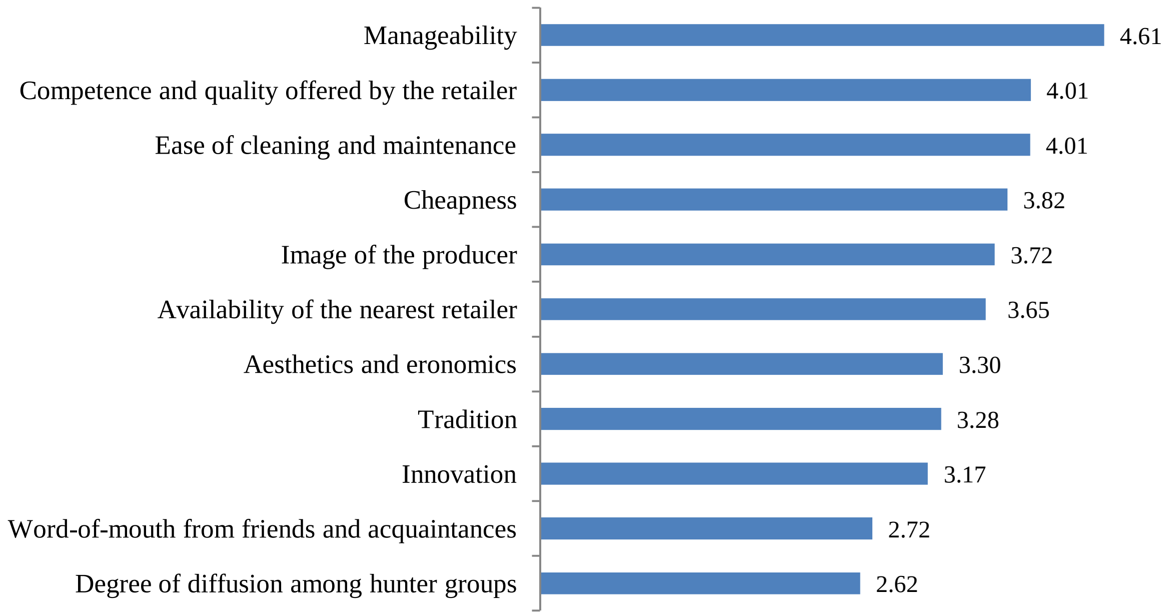


From figure 2 we can note, however, that each factor doesn't have a mean score less than 2.5, so we can state that all of them are important in the hunters purchase process.

Even retailers were asked to indicate which are in their opinion the critical variables that influence the hunters' purchasing process.

According to retailers (Figure 3), the groups of factors influencing the hunters' purchasing process of a firearm are first of all the interpersonal influence (mean score 4.25) followed by the retailer image and service quality (mean score 4.16) and by the brand image and product features (mean score 3.44).

Figure 2 – Factors considered in the hunters' firearm purchasing process - ranking in order of importance

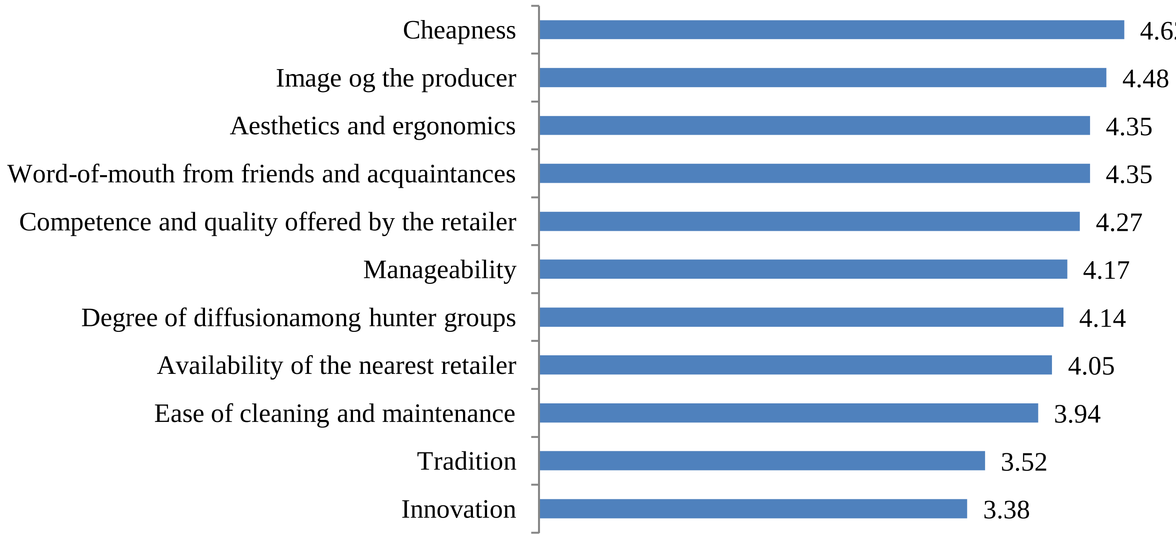


In the retailers opinion, regarding the interpersonal influence group, the factor of word-of-mouth from friends and acquaintance obtained a score of 4.35, while the degree of diffusion among hunter groups received a score of 4.14. As regards to the group of factors named retailer image and service quality, the respondents state that hunters are more careful about the competence and quality offered by the retailer (4.27) compared to the availability of the nearest retailer (4.05). Finally, the most relevant factors belonging to the brand image and product features group are the cheapness (mean 4.62), the image of the producer (4.48), the aesthetics and ergonomics (4.35) and the manageability (4.17).

Figure 3 – Group of factors considered in the hunters' firearm purchasing process according to retailers

Figure 4 shows which are the most important factors in the hunters' firearm purchasing process according to retailers. In particular, hunters pays attention first of all to the cheapness (mean 4.62), the image of the producer (4.48) and the word-of-mouth from friends and acquaintances, the aesthetics and the ergonomics (both of them average 4.35), followed by the competence and quality offered by retailer (4.27), the manageability (4.17) and the degree of diffusion among hunter groups (4.14). The less important factors for purchasing a firearm are the availability of the nearest retailer (average 4.05), the ease of cleaning and maintenance (3.94), the tradition (3.52) and the innovation (3.38). As for hunters, also in this case, all factors proposed have a mean score greater than 2.5 and they can be considered therefore important for the choice of the firearm.

Figure 4 – Factors considered in the hunters' firearm purchasing process according to retailers - ranking in order of importance



Comparing the perception of the two samples, it differs mainly with regard to the group of the interpersonal influence and the group of the retailer image and service quality (Table 2), that is, according to retailers, hunters are more influenced by the interpersonal relationships and are more careful about the service quality offered by the retailer. Table 2 could highlight that the perception of retailers on purchase behavior may not be correct and anyway differs from what the hunters state.

Table 2 – Comparison of the perspective of hunters and retailers

Group of factors	*Hunters*	*Retailers*	*Gap (R-H)*
Brand Image and product features	3.70	3.44	-0.26
Interpersonal influence	2.67	4.25	1.58
Retailer image and service quality	3.82	4.16	0.34

Table 3 compares the hunters and retailers perception about the new firearm purchasing process, considering all factors included in each category and it reveals that the greatest differences in the scores given by the two samples concern the cheapness (0.80 points gap), the aesthetics and ergonomics factor (1.06 gap), the degree of diffusion among the hunter groups (1.53 gap) and the word-of-mouth from friends and acquaintances (1.64 gap), with assessments from retailers always being higher than those from hunters. This result could mean that, according to retailers, hunters give a higher importance to aesthetics and ergonomics, degree of diffusion among hunter groups and word-of-mouth from friends and acquaintances. In particular, if the most important factors for hunters' purchasing process are manageability, ease of cleaning and maintenance and competences and quality offered by the retailer, in the dealers' opinion hunters pay great attention to cheapness, word-of- mouth from friend and acquaintances and aesthetics and ergonomics. As said previously, this result highlights that the retailers' perception purchase behavior may not be correct and anyway differs from what the hunters state. We can state that the retailers' perception does not match the hunters' one because retailers overvaluate the importance of word-of-mouth, the degree of diffusion among hunter groups and cheapness. In fact, the hunters' answers show a greater autonomy in customers' purchasing behavior and also less attention to the firearm's price. The same consideration could be made about the factor of aesthetics and ergonomics of the firearm.

In brief, the differences in the perception of consumer behavior highlight the fact that even though retailers know their customers quite well, they overvaluate some important factors. It means that the challenge facing dealers is to improve their knowledge of their customers because at present their perception is inaccurate.

Table 3 – The comparison between the perception of critical factors for the firearm purchase according to hunters and to retailers

The comparison between the critical factor perception of hunters and of retailers	*Hunters*	*Retailers*	*Gap (R-H)*
1. Aesthetics and ergonomics	3.29	4.35	**1.06**
2. Cheapness	3.82	4.62	**0.80**
3. Manageability	4.61	4.17	-0.44
4. Ease of cleaning and maintenance	4.00	3.94	-0.06
5. Innovation	3.17	3.38	0.21
6. Availability of the nearest retailer	3.64	4.05	0.41
7. Image of the producer	3.71	4.48	0.77
8. Degree of diffusion among hunter groups	2.61	4.14	**1.53**
9. Tradition	3.28	3.52	0.24
10. Word-of-mouth from friends and acquaintances	2.71	4.35	**1.64**
11. Competences and quality offered by the retailer	4.01	4.27	0.26

At this point, results should confirm what has been stated in the literature review, regarding the positive relation between the brand image and product features and the consumer's purchase intention (Keller, 1993; Del Rio, Vazquez & Iglesias, 2001), as "the more favourable the brand image is, the more positive is the attitude toward the branded product and its attributes". The same positive effect could be applied to the interpersonal influence on individual's consumption behaviour and to the service quality offered by the retailer since it conforms to the customer's requirements in the delivery of a service. In fact, the positive relationship between the groups of purchasing factors and consumer behaviour are encountered in the high score given by hunters and retailers to each factor analyzed.

4.2. Segmentation

As another important purpose of this research is to try to identify hunters groups with similar behavior in purchasing a firearm, it is necessary to perform a Non-hierarchical cluster analysis, that "aims to identify and classify similar entities, based upon the characteristics they possess. This helps the researchers to understand patterns of similarity and difference that reveal naturally occurring group" (Malhotra & Birks, 2007).

Cluster analysis is a commonly used statistical technique in a variety of disciplines when classification of subjects is the objective.

In this paper, through the cluster analysis it was possible to create hunters preferences maps.[2] The aim of the cluster analysis is to group into sub-sets or classes (clusters) elements belonging to a larger whole, so that the elements belonging to each group are as homogeneous as possible and the different groups are as heterogeneous as possible. Typically, this analysis is applied to achieve the segmentation, which allows to identify consumer groups with similar preferences within themselves and different as regards the other groups. It is possible to adopt hierarchical cluster analysis algorithms (mainly applicable on qualitative data) and non-hierarchical ones (usually applicable on quantitative data set). Here we will apply the "k-means" hierarchical algorithm.

The data collected through the questionnaire as input of the classical segmentation analysis consists of importance evaluation, on Likert Scale (1 = not at all important, 5 = extremely important), given to each attribute in the process of choosing and purchasing a firearm. To these, we added data relating to the generic characteristics of the hunter such as the age, the area of origin and the profession.

Starting the analysis, Table 4 shows the number of hunters who are part of each of the 4 clusters, to which belong 92, 34, 87 and 87 hunters respectively. As the system considers only hunters who fully responded to all answers of the questionnaire (to all the questions used in the cluster analysis), we considered as valid 300 interviews and therefore the profile of 300 hunters.

Table 4 – Number of cases in each cluster

Number of cases in each cluster		
Cluster	1	92
	2	34
	3	87
	4	87
Valid		300
Missing		103

[2] For reasons of space we have decided not to build and even explain the factor analysis we are aware that through the factor analysis we have the opportunity to see if the factors proposed belong to the categories, but as it requires further processing it could be an aspect to be explored in future researches.

Table 5 – Number of cases in each cluster - ANOVA

	Cluster		*Error*		*F*	*Sig.*
	Mean square	*df*	*Mean square*	*df*		
Aesthetics and ergonomics	18.291	3	1.824	296	10.030	.000
Cheapness	14.218	3	1.279	296	11.113	.000
Manageability	1.450	3	.389	296	3.732	.012
Ease of clearing and maintenance	14.422	3	1.069	296	13.492	.000
Innovation	108.461	3	1.044	296	103.919	.000
Image of the producer	27.221	3	1.461	296	18.629	.000
Degree of diffusion among hunter groups	35.718	3	1.253	296	28.509	.000
Tradition	63.283	3	1.336	296	47.363	.000
Word-of-mouth from friends and acquaintances	67.699	3	1.213	296	55.795	.000
Availability of the nearest retailer	75.923	3	1.265	296	59.999	.000
Competences and quality offered by the retailer	24.888	3	1.102	296	22.574	.000
Age	13.111	3	1.543	296	8.497	.000
Area of origin	.082	3	.169	296	.483	.695
Occupation – ordered (sorted) by salary	9.071	3	1.228	296	7.387	.000

To understand which variables most influenced the determinations of clusters, we analyze the ANOVA table (Table 5). The ANOVA table indicates which variable contributes most to the identification of the cluster. Innovation (mean square 108.461) is the most significant variable, followed by availability of the nearest retailer (75.923), word-of-mouth from friends and acquaintances (67.699) and tradition (63.283). The less influential characteristics are reliability, safety and duration over time of the firearm[3]. For the purpose of segmentation, being less influential does not mean that they are not considered important by hunters, but that they do not allow us to divide hunters in groups, which must be internally homogeneous but different from each other.

In order to give an interpretation to the obtained groups and to understand what hunters belonging to the same group have in common, final cluster centres (Table 6) have been developed. The cluster centre consists of the mean of each variable inside of the group, and it is useful to understand characteristics of hunters belonging to each group. In particular, through Table 6 it is possible to answer the question: who are the hunters belonging to a particular cluster?

Assuming that all clusters consider reliability, security, accuracy and manageability as very important factors when buying a firearm, for the description of the different clusters, we will rely mainly on four factors that, according to the ANOVA table described above, contribute most to the determination of the cluster: innovation, availability of the nearest retailer, word-of-mouth from friends and acquaintances and tradition.

[3] The area of origin cannot be considered as a reliable variable as almost all respondents belong to the central area of Italy. Because of the distortion of the geographic distribution of hunters (due to the fact that we interviewed hunters in a particular area of Italy during one of the most important trade fairs held in Rome), we have decided not to realize the cross-tabulation between the clusters and the demographic characteristics.

Table 6 – Final cluster centres

	Cluster			
	1 (92 hunt.)	*2 (34 hunt.)*	*3 (87 hunt.)*	*4 (87 hunt.)*
Aesthetics and ergonomics	3.01	3.08	3.10	4.00
Cheapness	3.50	3.56	3.90	4.43
Manageability	4.55	4.32	4.69	4.70
Ease of clearing and maintenance	3.68	3.44	4.17	4.49
Innovation	**1.91**	**2.00**	**4.05**	**4.05**
Image of the producer	**4.22**	**1.53**	**3.31**	**4.29**
Degree of diffusion among hunter groups	3.83	2.59	3.49	4.33
Tradition	2.45	1.76	2.21	3.48
Word-of- mouth from friends and acquaintances	**3.59**	**3.74**	**2.07**	**4.01**
Availability of the nearest retailer	**2.90**	**1.82**	**1.86**	**3.84**
Competences and quality offered by the retailer	4.29	2.68	3.92	4.28
Age	41-50 years old	51-60 years old	41-50 years old	51-60 years old
Area of origin	Middle Italy	Middle Italy	Middle Italy	Middle Italy
Occupation – ordered (sorted) by salary	Employee	Worker	Employee	Worker

Cluster number 1 is composed of 92 individuals (largest cluster), that are hunters who are on average between 41 and 50 years old and are mainly employees. Indeed, among the factors that become more important (in addition to factors such as reliability, security, accuracy, and manageability) are the competence and the quality of the retailer and the availability of the nearest retailer. In addition, those that belong to this group consider the tradition and the image of the producer as rather important factors, while they don't consider as relevant: innovation , the degree of diffusion of a particular firearm among hunters' groups and word-of-mouth from friends and acquaintances.

Cluster number 2 is the less numerous, being composed of 34 elements, and it is formed by hunters with an average age ranging from 51 to 60 years old and who are generally workers. Even in this case, features like reliability, security, accuracy, manageability and durability are of extreme importance in the choice of the firearm. In addition, tradition seems to be the characteristic that receives more attention, while innovation, the image of the producer, the availability of the nearest retailer and the word-of-mouth from friends and acquaintances have less importance.

The **third cluster** is composed of 87 hunters, who are aged between 41 and 50 years old and are mainly employees. Compared to the previous clusters, these hunters, when choosing a firearm, consider innovation, together with reliability, security, accuracy and manageability as factors of high importance, while they consider the tradition of the firearm of less importance. For these hunters, the opinion of the trusted retailer is quite important, but not the nearby location of the retailer. Finally, neither the degree of diffusion among hunter groups nor word-of-mouth from friends and acquaintances are considered as influential factors.

Finally, the **cluster number 4** is composed by 87 hunters (the same as the cluster number 3). They are mainly workers and are aged between 51 and 60 years old. This group thinks that all factors can be considered as extremely important. In fact, the average score given to each characteristic is more than 3.4. In this case, both innovation and tradition are items of extreme importance as well as the competence and the quality of the retailer and the availability of the nearest retailer. Factors that seem to be less important are word-of-mouth and the advice of friends and degree of diffusion among hunters' groups.

Table 7 – Number of cases in each cluster

	Cluster		*Error*		*F*	*Sig.*
	Mean square	*df*	*Mean square*	*df*		
Aesthetics and ergonomics	7.265	1	.617	198	11.767	.001
Cheapness	.572	1	.580	198	.987	.322
Availability of the nearest retailer	29.880	1	.781	198	38.240	.000
Image of the producer	9.623	1	.436	198	22.090	.000
Degree of diffusion among hunter groups	15.588	1	.484	198	32.228	.000
Tradition	28.240	1	1.089	198	25.926	.000
Easy cleaning and maintenance	25.685	1	.766	198	33.547	.000
Innovation	162.651	1	.911	198	178.451	.000
Manageability	20.492	1	.531	198	38.619	.000
Word-of-mouth from friends and acquaintances	11.116	1	.418	198	26.621	.000
Competence and the quality by the retailer	16.615	1	.489	198	33.984	.000

Through the quantitative survey carried out on the Italian retailers it has also been possible to obtain information about the characteristics which, according to the retailer, a hunter usually considers before buying a firearm and how important they are during the purchase process.

Such information enabled us to create two additional hunter clusters. Also in this case, to understand which factors better describe the differences between the two clusters we have to observe the ANOVA table. Table 7 shows that the elements that allow us to distinguish the two clusters are innovation, followed by availability of the nearest retailer and tradition.

Moreover, also in this case, in order to describe the different groups, we created Table 8 regarding the final cluster centres.

Table 8 – Centres of the final cluster

	Cluster	
	5 (103 retailers)	*6 (97 retailers)*
Aesthetics and ergonomics	4.17	4.55
Cheapness	4.56	4.67
Availability of the nearest retailer	3.67	4.44
Image of the producer	4.26	4.70
Degree of diffusion among hunter groups	3.86	4.42
Tradition	3.16	3.91
Easy cleaning and maintenance	3.59	4.31
Innovation	2.50	4.31
Manageability	3.85	4.49
Word-of-mouth from friends and acquaintances	4.13	4.60
Competence and the quality by the retailer	3.99	4.57

Cluster number 5 is composed of 103 retailer opinions. According to them, the hunters who buy a firearm are mainly those who give importance to all the factors except innovation. In fact, even tradition appears of extreme importance. The most important factor in hunters' selecting a firearm is the price. The competence and the quality of the retailer are considered important, but not as much as other factors such as word-of-mouth from friends and acquaintances, and the image of the producer.

Finally, **cluster number 6** is composed of 97 opinions of retailers. According to them, before purchasing a firearm, hunters analyze carefully all factors, considering them of extreme importance for the buying process. The absolutely important factor is the image of the producer, while the less important one, but still with a high score, is the tradition.

5. Conclusion, limitations, managerial implications and suggestions for future research

5.1. Conclusion

The paper examines the purchasing behavior of hunters in the Italian firearms sector, a field insufficiently studied by scholars. In particular, we have analyzed the Italian firearms industry as it is a very important productive sector in terms of turnover and value added generated in the Italian economy. Moreover, the sector represents one of the excellences of "Made in Italy" at a global level (Musso, Cioppi & Francioni, 2012).

The first objective of the study was to identify the critical variables influencing the firearms' buying process according to hunters and retailers. The second objective was to try to identify, through a segmentation realized by the cluster analysis, hunters' groups with similar generic characteristics and similar behaviour in purchasing a firearm.

Results showed that, according to a sample of 455 hunters interviewed, the most important group of factors influencing the firearm purchasing process are the retailer image and its service quality and the brand image and product features, while the less relevant is the interpersonal influence. According to the 200 respondent dealers, the group of factors that determine the purchase of a firearm are first of all the interpersonal influence and the retailer image and service quality, while the less relevant group of factors is related to the brand image and the product features.

Combining this results with the valuation given to word-of-mouth and price factors, we can state that the perception of retailers on purchase behaviour may not be completely correct and anyway differs from the hunter's answers.

One can state that the retailer's perception does not match the hunter's one, because retailers overrate the importance of word-of-mouth and degree of diffusion among hunters' groups and cheapness. In fact, the answers of hunters show a greater autonomy in the customer's purchasing behaviour and also a decreased attention to the firearm's price. The same consideration could be made about the factor of aesthetics and ergonomics of the firearm.

In brief, the differences in the perception of consumers behaviour highlight that even though retailers know their customers quite well, they overvaluate some important factors.

At this point, results should confirm what has been stated in the literature review, regarding the positive relation between the brand image and product features and the consumer's purchase intention (Keller, 1993; Del Rio, Vazquez & Iglesias, 2001), as "the more favourable the brand image is, the more positive is the attitude toward the branded product and its attributes". The same positive effect could be applied to the interpersonal influence on individual's consumption behaviour and to the service quality offered by the retailer since it conforms to the customer's requirements in the delivery of a service. In fact, the positive relationship between the groups of purchasing factors and consumer behaviour are encountered in the high score given by hunters and retailers to each factor analyzed.

In order to achieve the second objective of the research, we performed a Non-hierarchical cluster analysis, that allowed us to identify consumer groups with similar generic characteristics and similar behaviour in purchasing a firearm within themselves and different as regards the other groups. Results reveal that all clusters identified consider reliability, security, accuracy and manageability as very important factors when buying a firearm, while factors that contribute most to the segmentation (grouping the hunter in six clusters) are: innovation, availability of the nearest retailer, word-of-mouth from friends and acquaintances and tradition.

We identified six segments, four through the hunters' survey and two through the retailers' survey. We named them: the recommended, the conservative, the innovative, the informed, the stingy and the maniacs.

Cluster number one has been named "the recommended". This group is composed of hunters who probably, before buying a firearm, neither do research on the internet, nor get information from specialized magazines. When they want to purchase a new firearm, they go to their trusted retailer and seek advice from him. In addition, if they had to choose between two firearms, they would choose those with a long tradition behind it rather than a latest generation one.

Cluster number two is entitled "the conservative": this cluster consists of those who are very traditionalist. After the purchasing process, they probably choose to buy the same brand because they prefer to be conservative and not change. Innovation is not considered as an influential factor.

Cluster number three has been named "the innovative". Within this cluster are those who place a high importance on innovation, and when they decide to buy a firearm they are not interested in tradition and in advice from friends and relatives. Probably, before going to a retail store, they are already quite well informed about the most advanced firearms.

Cluster number four has been named "the informed": this group is composed of those who consider all the characteristics as important and they carry out considerable research and consult friends, acquaintances and other hunters before deciding which brand and which type of firearm to select. Therefore, when they go to the retailer, they already have a clear idea of the type of firearm which answer their requirements; however, before purchase, they ask the retailer for advice.

Cluster number five has been entitled "the stingy": this cluster is made up of those who, despite conducting research and consulting friends before buying a firearm, they will be attracted by the one that offers the best value for money.

Finally, cluster number six was named "the maniac": within this cluster we found those who carefully consider every detail and characteristic before buying a firearm.

All clusters consider reliability, security, accuracy and manageability as very important factors when buying a firearm. However, the factors that contribute most to the determination of the cluster are innovation, availability of the nearest retailer, word–of-mouth from friends and acquaintances and tradition. In fact, innovation is a very important factor for the innovative, the informed and the maniac, while it is less important for the recommended, the conservative and the stingy.

The availability of the nearest retailer is relevant for all clusters except for the conservative and the innovative, while word–of-mouth is irrelevant for the recommended, the conservative, the innovative and the informed.

Finally, tradition is an important factor for the recommended and the conservative, while it isn't for the innovative, the informed and the maniac.

For the maniacs and the stingy all factors are extremely important, but with a small difference. The stingy give absolute importance to cheapness and a less importance to innovation, while the maniac pays particular attention to the image of the producer and less attention to tradition.

5.2. Managerial implication, limitations and suggestions for future research

From our empirical study, we can state some important managerial implications for firearms producers and dealers.

According to what emerges from the opinion of the hunters, it is very important for the producers to pay great attention first of all to the retailer image and the service quality, and in particular to the competence and quality offered by the retailer and the availability of the nearest retailer. This highlights the crucial role of the trade channel for competitive advantage in the firearms industry. Great attention needs to be dedicated to the brand image and product features, both factors that involve marketing departments, which are obliged to understand the hunter's purchasing behavior when they propose and communicate new solutions for creating value for customers. The same challenge involves the dealers, who, as is shown in this research, need to improve their customer knowledge.

Also, according to what emerges from our hunter segmentation, we can state that firearms producers and dealers face some important strategic challenges. First of all they could imagine new market niches, new businesses identified with original clustering criteria, that could help managers to identify interesting "blue oceans"[4] to enter with new value solutions for new customers. The features of each customer's purchasing behavior within the cluster provide several useful managerial implications for firearms producers. In particular, the study suggests that brand investment is as important as product innovation and that there could be some market segments that offer interesting opportunities of growth.

In added, the Italian firearms producers could evaluate whether their current competitive strategies are exploiting these potential market spaces.

The limitations of this study provide directions for future research. Firstly, the study is focused on Italy. Future research could analyze other countries. A second limitation was that the study did not take into account other potential factors which may influence the hunter's purchase intention. Such a limitation could be overcome by future studies. For example we could add product usability, product performance and brand association in customers' memory.

We also recommend that future works should be conducted analyzing the differences in the purchasing intention of hunters and sports marksmen.

References

Aaker, D. A. (1996). *Building Strong Brands*. New York, NY: The Free Press.

Aaker, D. A., & Keller, K. L. (1990). Consumer evaluation of brand extension. *Journal of Marketing, 54*(January), 27-41.

Aghekyan-Simonian, M., Forsythe, S., Kwon, W. S., & Chattaraman, V. (2012). The role of product brand image and online store image on perceived risks and online purchase intentions for apparel. *Journal of Retailing and Consumer Services, 19*, 325-331.

Ataman, B., & Ülengin, B. (2003). A note on the effect of brand image on sales. *Journal of Product & Brand Management, 12*(4), 237 - 250.

Bearden, W. O., Netemeyer, R. E., & Teal, J. E. (1989). Measurement of consumer susceptibility to interpersonal influence. *Journal of Consumer Research, 15*, 473-481.

Bian, Q., & Forsythe, S. (2012). Purchase intention for luxury brands: A cross cultural comparison. *Journal of Business Research, 65*, 1443-1451.

[4]Cfr. Kim W. C., Mauborgne R. (2005). *Blue Ocean Strategy: how to create uncontested market space and make the competition irrelevant*, Harvard business school press.

Bian X., & Moutinho L., (2011) The role of brand image, product involvement, and knowledge in explaining consumer purchase behavior of counterfeits: Direct and indirect effects. *European Journal of Marketing*, *45*(1/2), 191 – 216.

Chakrabarty, S., Whitten, D., & Green, K. (2007). Understanding service quality and relationship quality in IS outsourcing: client orientation and promotion, project management effectiveness, and the task-technology-structure fit. *Journal of Computer Information Systems, 48*(2), 1-15.

Chen, Y. H., Hsu I., & Lin C. C. (2010). Website attributes that increase consumer purchase intention: A conjoint analysis. *Journal of Business Research*, *63*(9), 1007-14.

Chiang, K-P., & Dholakia, R. R. (2003). Factors driving consumer intention to shop online: An empirical investigation. *Journal of Consumer Psychology*, *13*(1 & 2), 177-183.

Cronin, J. J. Jr, & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, *56*(3), 55-68.

Del Rio, A. B., Vazquez, R., & Iglesias, V. (2001). The effects of brand association on consumer response. *Journal of Consumer Marketing*, *18*(5), 410-425.

Esch, F., Tobias R.L., Bernd S.H., & Patrick G. (2006). Are brands forever? How brand knowledge and relationships affect current and future purchases. *Journal of Product and Brand Management*, *15*(2), 27-49.

Fisk, R. F., Brown, S. W., & Bitner, M. J. (1993). Teaching the evolution of services marketing literature. *Journal of Retailing*, *69*(1), 61-103.

Godey, B., Pederzoli, D., Aiello & al. (2012). Brand and country-of-origin effect on consumers' decision to purchase luxury products. *Journal of Business Research*, 65(10), 1461-1470.

Grönroos, C. (2010). *Management e Marketing dei Servizi. Un approccio al management dei rapporti con la clientela*. Torino: ISEDI.

Hankinson, G. (2007). The management of destination brands: five guiding principles based on recent developments in corporate branding theory. *Journal of brand management*, 14, 240-254.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, *57*(1), 1-22.

Khan I., Ghauri A. T., & Majeed S. (2012). Impact of brand related attributes on purchase intention of customers. A study about the customers of punjab, Pakistan. *Interdisciplinary Journal of Contemporary Research In Business, 4*(3), 194-200.

Kim W. C., & Mauborgne R. (2005). *Blue Ocean Strategy: how to create uncontested market space and make the competition irrelevant*. Harvard business school press.

Kropp, F., Lavack, A. M., & J.S., H. S. (1999). Smokers and beer drinkers: values and consumer susceptibility to interpersonal influence. *Journal of Consumer Marketing, 16*(6), 536 - 557.

Laroche, N., Kim, C., & Zhou, L. (1996). Brand familiarity and confidence as determinants of purchase intention: an empirical test in a multiple brand context. *Journal of Business Research*, *37*(10), 115-20.

Laroche, M., & Sadokierski, R.W. (1994). Role of confidence in a multi-brand model of intentions for a high involvement service. *Journal of Business Research, 29*(1), 1-12.

MacKenzie, S. B., Lutz, R. J. & Belch, G. E. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: a test of competing explanations. *Journal of Marketing Research*, *23*(2), 130-43.

Malhotra, N. K., & Birks, D. F. (2007). *Marketing research. An applied approach*. Harlow, Uk: Prentice Hall.

Mourali, M., Laroche, M., & Pons, F. (2005). Individualistic orientation and consumer susceptibility to interpersonal influence. *Journal of Services Marketing*, *19*(3), 164 - 173.

Musso, F., Cioppi, M., & Francioni, B. (2012). *Il settore armiero per uso sportivo, venatorio e civile in Italia. Imprese produttrici, consumi per caccia e tiro, impatto economico e occupazionale*. Milano: Franco Angeli.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, *49*(4), 41-50.

Park, C., & Srinivasan, V. (1994). A survey-based method for measuring and understanding brand equity and its extendibility. *Journal of Marketing Research*, *31*(2), 271-288.

Plummer, J.T. (1985). How personality makes a difference. *Journal of Advertising Research*, 24(6), 27-83.

Plummer, J.T. (2000), How personality makes a difference. *Journal of Advertising Research*, 40(6), 79-83.

Shukla, P. (2011). Impact of interpersonal influences, brand origin and brand image on luxury purchase intentions: Measuring interfunctional interactions and a cross-national comparison. *Journal of World Business, 46*, 242-252.

Sullivan, J. R., & Walstrom, K. A. (2001). Consumer perspectives on service quality of electronic commerce web sites. *Journal of Computer Information Systems, 41*(3), 8-14.

Thakor, M. V., & Kohli, C. S. (1996). Brand origin: Conceptualization and review. *Journal of Consumer Marketing*, *13*, 27-42.

Wang, C. L., Li D., Barnes, B. R., & Ahn, J. (2012). Country image, product image and consumer purchase intention: Evidence from an emerging economy. *International Business Review*, Dec 2012, *21*(6), 1041-1051.

Wu, P. C. S., Yeh, G. Y.-Y. & Hsiao, C.-R. (2011). The effect of store image and service quality on brand image and purchase intention for private label brands. *Australasian Marketing Journal*, *19*, 30-39.