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Marketing Trends

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SEGMENTING THE SENIOR TOURISM MARKET:

Identification of Subjective Ages' Influences on Seniors' Travel Motivations

ABSTRACT

A comparison between the influences of four subjective ages' variables (cognitive age, ideal age, youth age and discrepancy age) on the senior travellers' behaviours reveals that the discrepancy between the cognitive age and the ideal age is the most influential variable. Particularly, this discrepancy age plays a significant role on senior travel motivations and perceived risks: the larger the discrepancy is, the more seniors would worry about the travel risks and would look for relaxation while on holidays. Besides, the discrepancy age is able to discriminate between the four travel motivations segments identified with a survey conducted on 300 French senior travellers: relaxed intellectual; knowledge hunters; hesitating, non intellectual and non sportive and finally active and open minded senior travellers. This segmentation could help marketers in developing new tourism products for the senior market.

KEY WORDS

Senior consumer, youth age, discrepancy age, travel motivations, senior market segmentation

INTRODUCTION AND OBJECTIVES

Developed countries are facing today the arrival of a demographic ageing wave. Particularly in Europe where the proportion of people aged 65 and over is already the highest in the world (United Nation Population Fund 2000). From a market point of view, this ageing population, re named the senior market, could initiate enormous opportunities for several industries (Dychtwald 1997). The high potential of this new market has now captured the attention of marketers in the tourism industry. Indeed, besides its size, this part of the population has the free time and the financial resources required for tourism activities (Muller and Strickland 1995). They take more holidays and spend a larger proportion on travel and leisure than the others (Lavery 1999). Thus, it has become important to provide them with suitable tourism products and services. However, marketers are facing today difficulties in order to build such new offers since seniors behave differently from what we used to call – at the same age - older people (Stewart 2005, Davies 2005). Studies that have been conducted over the last thirty years on the travel motivations of the elderly have been useful to segment the older market at that time. Today, current research, involving new psychological variables, is needed to segment this

market, especially in Europe where it has been neglected. Among the European seniors, the French senior consumers are an opportune travel market that worth being investigated. Indeed, more than 30% of the French population is 50 years old and over (INSEE 2008), there was an increase of the tourism consumption of this group over the last ten years (Direction du Tourisme 2004), and tourism is a priority for the French senior consumers before housing and clothes (Interdeco 2002).

The purpose of this research is twofold. First, provide a current seniors market segmentation based on travel motivations, and additional psychological and demographic characteristics that help to precise these profiles. For that part, this study will deepen the research initiated by Cleaver and Muller (1998) and Cleaver Sellick (2004) by testing the role of new subjective age variables as additional segmentation tools. The resulted segmentation could be useful for marketers, especially those who are dealing with the French senior consumers. They could develop dedicated offers and target the senior travellers more specifically. Second, analyze the influences of four subjective age variables on the senior travel behaviours. The study presented in this article is the first study that compares the impact of the cognitive age, the ideal age, the youth age and the discrepancy age, on the senior behaviours. It allows identifying the most influential subjective age variable for the senior tourism consumption. This variable, which is the discrepancy age, could help to better understand the behaviour of the travellers' segments.

CONCEPTUAL FRAMEWORK AND RESEARCH MODEL

SENIOR TOURISM MARKET SEGMENTATION

The first typologies of tourists were mainly based on situational parameters which was a limited approach (Braun 1989). Progressively, the idea that travel motivations could be useful segmentation tools for the tourism market was suggested (Cohen 1978, Plog 1974, Perreau et alii 1977) and confirmed (McIntosh and Goeldner 1990, Cha et alii 1995). This method of segmentation appeared to be helpful to understand the travellers' behaviours, and resulted in interesting profiles. Consequently, as the interest for the elderly consumers grew, marketers focused mainly on travel motivations, combined with additional variables, to segment this market (Backman et alii 1999, Shoemaker 1989, 2000, Cleaver et alii 1999, Cleaver Sellick 2004).

Senior Travel Motivations

Travel and tourism behaviour is related to need satisfaction (Mill and Morrison 1985, Pitts and Woodside 1986). The tourism activities offer opportunities to the individual to focus on his/her self (Hallab 1999). Particularly, self actualization (Maslow 1943) is a key element to understand the tourism behaviour (Pearce 1982). It could be considered as a process which purpose is to reduce the gap between the individual's actual self concept and his/her ideal self concept (Grunow-Lutter 1983). Cohen (1984) suggested that, with older age, self actualization would become more and more important as travel motivation.

Travel motivations could be classified into two types: the push factors and the pull factors (Dann 1977). The push factors tend to be based on emotions and could be generated by a feeling of privation (Tolman 1932). They are intrinsic and intangible by nature (Lundberg 1990). For instance, the motivations to escape, to relax, to be adventurous, or to interact with others could be considered as tourism push factors (Uysal and Hagan 1980). The pull factors are based on cognitions and could be generated by the information the individual got about the purposes he would like to reach. They tend to attract the individual towards one of the tourism offer's attributes (Dann 1977). These could be tangible components of the travel, such as beaches and tourism activities, or intangible components, such as the traveller's expectations of the destination's attributes and benefits (Smith 1983). Mannell and Iso-Ahola (1987), who focused on travel motivations, identified two dimensions: escaping and seeking. Some people would be motivated to travel for escapism, whereas some others would be seeking personal or interpersonal rewards. They suggested that older travellers would be motivated to travel in order to seek, rather than to escape.

Senior Travel Motives Profiles

A revue of literature of research conducted on the senior travel motives profiles over the last thirty years showed that few new motivations have been revealed. Indeed, similarities exist between the major travel motives factors that have been identified through these distinct studies: learning is one of this factor (Backman et alii 1999, Cleaver et alii 1999, Cleaver Sellick 2004, Guinn 1980, Kim et alii 1996), but also self-esteem (Cleaver et alii 1999, Cleaver Sellick 2004, Stone and Nicol 1999), relaxation (Backman et alii 1999, Guinn 1980, Cleaver and Muller 1998, Cleaver Sellick 2004, Shoemaker 1989), social interaction (Backman et alii 1999, Cleaver et alii 1999, Cleaver Sellick 2004, Guinn 1980, Shoemaker 1989, Stone and Nicol 1999) and physical activity (Backman et alii 1999, Cleaver et Muller 1998, Cleaver et alii 1999, Guinn 1980, Shoemaker 1989, Stone and Nicol 1999). This observation agrees with Shoemaker's recent study (Shoemaker 2000) where the researcher revealed similarities between

travel motivations' clusters derived in 1996 with the clusters derived 10 years earlier in 1986 (Shoemaker 1989) at the same location. However, senior travellers behave today differently from what we used to call older travellers (Stewart 2005, Davies 2005). As they already experienced travel when they were younger - which was not the case of the previous generations – one may assume that seniors would have different preferences for travel (Oppermann 1995). Hence, the debate is still opened, and needs current senior travel motives profiles to reach a satisfying answer. Such profiles are all the more needed in France as the revue of literature on senior travellers revealed no studies that have investigated the French senior travel motives. *For these reasons, in this research, we will identify the travel motives profiles of a French senior population.*

By combining travel motives with additional variables, previous researchers were then able to precise the profile of the senior travel segments. In this study, we will use the travel perceived risks, some demographic variables and some subjective age variables as additional variables.

Additional segmentation variables

Travel perceived risks

In every buying situation, the consumer is facing perceived risks (Bauer 1960). They are important elements and could not be neglected since they could prevent the individual from acting on his/her motivations. Considering the continuum of risk (Cunningham 1967), travel perceived risks could be rated at a high level. Indeed, for a travel and tourism decision (1) the amount of money spent is high and significant differences exist between the competitive offers (Capella and Greco 1987), and (2) the tourism activities, as services, are intangible and non standardized (Zeithaml 1981). Number of factors could prevent a consumer to act on his/her motivations (Brooker 1983, Jacoby and Kaplan 1972) especially in the tourism area. The travel perceived risks classification could be inspired from the consumer behaviour one: concern about the equipment, financial concern, physical concern, psychological concern, concern about his/her satisfaction, social concern or concern about losing or wasting his/her time while on holidays (Roehl and Fesenmeier 1992). Research on the elderly constraints to travel revealed that satisfaction (interest), time, security, physical ability and information were important dimensions (McGuire et alii 1986, McIntosh et alii 1995).

Demographic variables

Tourism consumer behaviourists view the demographic variables, if combined with other variables, as supportive elements to explain an individual's tourism motivations and behaviours

(Hallab 1999). Demographics, such as age, gender, level of education and incomes level have been used as additional segmentation variables for the senior tourism market (Guinn 1980, Shoemaker 1989, 2000, Backman et alii 1999, Cleaver Sellick 2004). The influence of these variables on the travel behaviour has been revealed in previous research (Tongren 1980, Fodness 1992, McGehee et alii 1996, Zimmer et alii 1995, Anderek et Caldwell 1993, McGuire et alii 1986).

Besides, research on the senior travellers revealed that the health evaluation or self-assessed health should be taken into consideration (McGuire et alii 1986, Blazey 1992). It appeared that this variable has significant impact on the senior destination choice (Zimmer et alii 1995) and could be considered as a major constraint to travel for some older people (Blazey 1992).

Since the senior consumer concept has been introduced to describe a new reality of ageing, a new non chronological age variable has become of interest for studying his/her behaviour: the subjective age. The influence of this variable on the senior consumer behaviour has already been investigated for several industries, and some research revealed that the subjective age could be a useful segmentation tool for the senior market.

SUBJECTIVE AGE AND ITS INFLUENCES ON THE SENIOR CONSUMER BEHAVIOURS

The concept of the subjective age has been introduced by Tuckman and Lorge (1954) and Blau (1956) in Gerontology. At this time, it measured an individual's self perception in terms of reference age groups (Blau 1956, Peters 1971, Rosow 1974), and established how a person felt about such groups. As an element of an individual's self perception, the subjective age became a variable of interest for research in Marketing. Indeed, the self image of an individual is a useful concept for a better understanding of the consumer behaviours. The congruence theory (Sirgy 1982) explains how self images impact consumer choices. Progressively, researchers focused on this new perceived age component and revealed that it could be considered as an overall concept to describe a group of non chronological age variables (Barak and Gould 1985). Among them, ideal age, cognitive age, youth age and discrepancy age are of interest for research on the senior consumers.

Ideal Age

The ideal age is the age a person wishes to have (Zola 1962). It is linked to the ideal self perception of the individual, an important component of one's self-concept (Sirgy 1982, Rosenberg 1979), which is a useful concept to address consumer behaviour issues (Onkvisit and Shaw 1987, Sirgy and Danes 1982). Introduced as the desired age (Zola 1962), the ideal age has

been revealed as a component of the subjective age thanks to Barak (1987), Barak and Gould (1985) and Barak and Stern (1985). The elderly who mentioned an ideal age over 30, used to perceive themselves younger than their chronological age (Barak 1987). The influence of the ideal age on the senior consumer behaviour is largely unknown since this variable has received very little attention from marketing researchers. Recent studies revealed that this subjective age variable has significant impacts on the implication towards clothes (Wilkes 1992) and cosmetics (Guiot 2001), and on the media use (Guiot et alii 2006). Surprisingly, in regards to the importance of the ideal self perception for the tourism consumption (Hallab 1999, Grunow-Lutter 1983), the influence of the ideal age on the senior travel behaviour has still not been addressed. For these reasons, we will test the first hypothesis H1: The ideal age influences the senior travel behaviours.

Cognitive Age

On the contrary to the ideal age, the cognitive age has been one of the most frequently investigated variables for research on the senior consumer (Barak et alii 1988, Day et alii 1988, Sorce et alii 1989, Chua et alii 1990, Stephens 1991, Wilkes 1992). Introduced as the personal age, the cognitive age of an individual is the age he or she identifies with (Kastenbaum et alii 1972). It is linked to the self perception of this individual and indicates how old a person feels, whatever his/her chronological age is. The influence of this subjective age variable (Barak et alii 1988) on the buying behaviour of the senior consumers has already been revealed in few areas of research in Marketing (Tongren 1988, Shiffman and Sherman 1991, Stephens 1991). In the tourism area, the gap between the cognitive age and the chronological age, has been explored and appeared to be a useful tool to segment the senior travellers market (Cleaver and Muller 1998). But there is still a need to analyse the influence of the cognitive age itself on their tourism behaviour. This specific issue was underlined, for future research, by Cleaver Sellick (2004): *"The use of the cognitive age gap, rather than the cognitive age raw score, was a delimitation of the study. Reproduction of these analyses concentrating on the cognitive age raw score may offer more information [...]"*. For these reasons, we will test the second hypothesis H2: The cognitive age influences the senior travel behaviours.

Youth Age

Progressively, the difference between the actual and the cognitive ages has become the variable of interest for research on the senior consumer (Barak and Schiffman 1981, Stephens 1991, Wilkes 1992, Dune and Turley 1997). Entitled youth age, this variable reflects the number of years a person perceives him/herself to be younger (or older) than his/her chronological age (Barak and Gould 1985). One of the characteristic of the senior consumers is a positive youth

age: seniors are more likely to report a younger cognitive age than their chronological age. This differential of ages seems to explain more about senior consumption behaviours than chronological age and/or cognitive age apart (Wilkes 1992). Youth age influences the seniors' implication towards the clothes (Goldsmith and Stith 1990, Guiot 2001), but also their search for information before buying (Tongren 1988, Schifman and Sherman 1991) and their risk perceptions in the leisure activities for instance (Stephens 1991). Moreover, this variable was considered as a new segmentation tool for the senior market (Dunne and Turley 1997). It has already been used as a segmentation variable for the senior tourism market (Cleaver and Muller 1998, Cleaver Sellick). The results are interesting and show that the links between the youth age and the senior travel characteristics need to be deepened. That is why in this study we analyze the impact of the youth age on the senior travel behaviours with the test of the third hypothesis H3: Youth age influences the senior travel behaviours.

Discrepancy age

The discrepancy age has been introduced by Barak and Gould (1985) as the gap between the cognitive and the ideal ages. Considering the framework of the self-concept theory (Sirgy 1982), the discrepancy age could be considered as a measure of the discrepancy of an individual's actual and ideal self-concept, reflecting an attitude towards self perceived age-role (Barak and Gould 1985). Despite the relevance of this variable, empirically confirmed by a first research (Barak and Gould 1985), this differential of ages has been neglected in the studies on the senior consumers. However, one may assume that this variable could be helpful for the study of their travel behaviour. Indeed, the perceived self and the ideal self concepts, and the discrepancy between them, play important roles in the tourism consumption, particularly through the self actualization need (Grunow-Lutter 1983). That is the reason why we introduce this variable within the group of subjective age variables that could influence the senior travel motivations, and more generally the senior travel behaviours. Hence, we analyze the effects of the discrepancy age on the senior travel behaviour with the fourth hypothesis H4: Discrepancy age influences the senior travel behaviours.

The travel behaviours are evaluated through four types of variables: characteristics of the last tourism trip, sources of information used before buying this last trip, travel motivations and travel perceived risks.

RESEARCH METHODOLOGY

SAMPLING

The data used in this study were collected in French associations for retired people. These associations proposed leisure and educational activities, such as courses or conferences, to their

members. The data have been collected within seven cities over the country: three of them were major cities (population over 200 000 inhabitants) Paris, Lyon and Rennes; two others were middle size cities (population between 100 000 and 200 000 inhabitants) Caen and Amiens, and finally two cities were small cities (less than 100 000 inhabitants) Mayennes and Poitiers. The survey occurred between the beginning of May down to the end of June 2008 when travel was likely to be in people's minds.

Given the limited funds available, the data collection involved self administered questionnaires. The questionnaire was pre tested on a convenience sample of 20 retired persons in Paris. Then it was administered to groups of retired people, at the association's location, before a course, a conference or a general meeting. The size of the groups varied from 15 persons down to 52 persons. Each person answered the questionnaire individually. The survey lasted around 20 minutes. 375 questionnaires have been administered. Among these questionnaires, 56 were incomplete (90% of these incomplete questionnaires presented one or several blanks (no answer) on the subjective ages' items) and 19 presented unacceptable or unreadable answers. Thus, these 75 questionnaires were not used for analysis. Table 1 outlines the demographic characteristics of the final sample.

Table 1. Description of the final sample

Characteristics	Frequency	Percentage
Gender		
Female	181	60,3
Male	110	39,7
Educational Level		
University diploma (or equivalent)	168	56
No University diploma	132	44
Marital/relationship Situation		
in a relationship	219	73
alone	81	27
Household Incomes (per month)		
Less than 1000 €	18	6
1000 € - 1500 €	35	11,7
1500 € - 2000 €	88	29,3
2000 € - 3000 €	106	35,3
More than 3000 €	53	17,7
Self Assessed Health		
Extremely poor - poor	0	0
Not that good	51	17
Fair	108	36
Good	103	34,3
Excellent	38	12,7

RESEARCH INSTRUMENTS

Characteristics of the last tourism trip

As French people over 55 are used to travel for three successive days at least (Direction du Tourisme 2004), we chose that (trip) definition for this research and introduced it in the

questionnaire. The characteristics of the last tourism trip we measured in this study were: the destination (France or abroad), the budget (amount of money spent for this trip: less than 100 €, 101-500 €, 501-1000 €, 1001-2500 €, 2500-5000 €, more than 5000 €), the all inclusive characteristic (all inclusive or not) and the reservation channel (in a local agency or through the Internet).

Sources of information

The identification of the sources of information used by travellers is an important element for practitioners since they highly invest in several channels in order to target their consumers. Particularly, investment in the Internet channel has become a key issue for them. That is the reason why tow types of information were collected: first: did the retired person look for any information before buying his/her trip? (Yes or no). Second: what kind of information channels did this person use? (the Internet or other channels).

Measurement of the travel motivations

As no French travel motivations' scale has been identified in our literature revue, we measured the seniors' travel motivations with the 14 items of the Ryan and Glendon's scale (Ryan and Glendon 1998). Adapted from the Beard and Ragheb (1983) leisure motivations' scale, these travel motivations' items represent four factor components: intellectual, social, competency/mastery and stimulus avoidance (Ryan and Glendon 1998, Beard and Ragheb 1983). The stability of these factors has been studied, on a five years period, and was satisfying (Lounsbury and Hoopes 1988). Besides, the original scale (Beard and Ragheb 1983) has been used in other studies (Sefton 1989, Sefton and Burton 1990, Lounsbury and Franz 1990) and findings on its quality have been replicated. As Smith and Godbey (1991) revealed relationships between tourism and leisure concepts, this adaptation of the original scale (Beard and Ragheb 1983) by Ryan and Glendon was justified. Finally, some items of the Ryan and Glendon's scale have already been used to measure the travel motivations of Australian people aged 60 and over (Cleaver and Muller 1998).

All these elements justify the quality and the suitability of this scale for our research. That is why we decided to use it within our study, and hence we transferred it to the French context. We applied the procedure of Vallerand (1989) which resulted in a French travel motivations' scale of 13 items, representing the four factor components. The French item, equivalent for the original item "use my imagination", has not been taken into consideration, since the results of the exploratory factor analysis revealed that the differences between its contribution on each factor were smaller than 0.3, which was not satisfying (Stewart 1981). Answers to each of the

13 statements were recorded on a 5-points scale of (1*) I strongly disagree* to (5) *I strongly agree*.

Measurement of the travel perceived risks

Similarly, no French travel perceived risks' scale has been identified in the literature revue. However, we identified the Roehl and Fesenmaier's American scale (Roehl and Fesenmaier 1992). This scale is dedicated to the measurement of pleasure travel perceived risks which is an important characteristic since we know that risks perceptions are dependant on a situation and should then be measured with an appropriate tool (Dowling 1986, McCrimmon and Wehrung 1986). Besides, this scale allows identifying the seven perceived risks for a consumer (Jacoby and Kaplan 1972): equipment, financial, psychological, satisfaction, time, social and physical risks, which could be useful for a study on pleasure travel activities. Finally, Cleaver Sellick (2004) adapted this scale for the study of American people aged 50 and over. This adaptation should not be neglected since we know that the importance of perceived risks' dimensions is dependant on the individual's characteristics (Slovic 1972). Consequently, this adapted tool seemed to be the most suitable for our research on the French senior travellers. Thus, we transferred this adapted scale (of nine items) to the French context using the Vallerand's procedure (Vallerand 1989) and we used this nine items' transferred version to measure the travel perceived risks among the French senior population. Answers to each of the nine statements were recorded on a 5-points scale of (1*) this would not worry me at all* to (5) *this would worry me a lot*.

Measurement of subjective age variables

  Measurement of the cognitive age

The revue of literature revealed that no cognitive age's scale has been developed specifically in France. However, an American scale has been transferred to the French context (Guiot 1999). The quality indicators of this new French tool were satisfying. Since then, it has been used in other studies for the measurement of the cognitive age among populations of French people aged 50 and over (Boulbry 2003, Guiot et alii 2006). The original scale was developed by Barak and Schiffman (1981) and inspired by Kastenbaum et alii (1972). This scale appears as the only one that has been validated by researchers in the consumer behaviour field (Wilkes 1992). Using this scale, the concept of cognitive age is structured around four components: a psychological component (Feel age), a biological component (Look age), a social component (Do age) and a component linked to the interests of the individual (Interest age). In the research

that she initiated on the senior travellers, Cleaver used a reduced version of Barak and Shiffman's scale, focusing on Feel Age and Activity age (Cleaver and Muller 1998, Cleaver Sellick 2004). Besides, she modified the original item that measures the Activity age, by adapting it to a travel holiday activity. Finally, she added a new component, which she entitled Treatment age, measured with the following item "*When on a travel holiday, I expect to be treated and recognized as a person in their…*" (Cleaver Sellick 2004). However, the study revealed that this added item was not useful for the description (and the understanding) of the senior travellers (Cleaver Sellick 2004).

As significant and interesting results have been reached in other studies using the Barak and Schiffman's scale and as a French valid and satisfying version of this scale exists, we measured the cognitive age with the French translation of the four following items: "*I feel as though I am …years old*", "*In terms of physical appearance, I look as I am …years old*", "*Usually, I do most of the things as I were…years old*" and "*My interests are those of a person of …years old*". As in previous research, these individual measures were then combined into a single (average) measure called Cognitive age.

Measurement of the ideal age

Similarly, the revue of literature revealed no ideal age's scale developed specifically in France. This concept was first measured by simple item scales (Zola 1962, Barak 1987, Barak and Gould 1985). Progressively, a more complex scale was developed by Barak et alii (1988) and Barak (1998). Based on the cognitive age's scale (Barak and Schiffman 1981), this tool is structured around four components: a psychological component (Ideal Feel age: "*I would like to feel as though I were…*"), a biological component (Ideal Look age: "*I would like to look as though I were…*"), a social component (Ideal Do age: "*I would like to do things as though I were in my …*") and a component linked to the interests of the individual (Ideal Interest age: "*I would like my interests to be those of someone in his/her…*") (Barak et alii 1988). This scale has been transferred to the French context, then has been used on a population of 305 French people aged 35 and over (people over 60 were part of the sample) (Guiot et alii 2006). Quality indicators were satisfying. Consequently, we measured the ideal age with the French translation of the four items proposed by Barak et alii (1988). As in previous research, the individual measures were then combined into a single (average) measure called Ideal age.

Measurement of the youth age

The youth age is the number of years a person perceives him/herself to be younger (older) than his/her chronological age. It means this is the discrepancy between a respondent's chronological age and his/her cognitive age (Barak and Gould 1985). Basically:

$$\text{Youth age} = \text{Chronological age} - \text{Cognitive age} \quad (1) \text{ (Barak and Gould 1985)}$$

Cognitive age was measured as mentioned previously and chronological age was measured by asking the respondent's date of birth. Then, the gap between the chronological age and each component of the cognitive age could be calculated, resulted in four new components: Youth Feel age, Youth Look age, Youth Do age and Youth Interest age. Finally, the overall value of the Youth age resulted from the combination (arithmetic average calculation) of these individual measures.

Measurement of the discrepancy age

The discrepancy age is the magnitude of the discrepancy between a respondent's cognitive age and his/her ideal age (Barak and Gould 1985). Basically:

$$\text{Discrepancy age} = \text{Cognitive age} - \text{Ideal age} \quad (2) \text{ (Barak and Gould 1985)}$$

Cognitive age and Ideal age were measured as mentioned previously. Then the discrepancy between each component of the cognitive age and the associated component of the ideal age was calculated, resulted in four new components: Discrepancy Feel age, Discrepancy Look age, Discrepancy Do age and Discrepancy Interest age. Finally, the overall value of the discrepancy age resulted from the combination (arithmetic average calculation) of these individual measures.

Demographic characteristics

We collected information on six demographic characteristics. Gender was categorized as female (1) and male (2). As the number of divorces seems to increase within the senior population and new relationship situations appear, we measure what we called the marital/relationship situation through two choices : (1) in a relationship or (2) alone. Educational level was simply measured through two possibilities: (1) university diploma and (2) no university diploma. Household incomes level was categorized as (1) less than 1000 € per month, (2) between 1000 and 1500 € per month, (3) between 1500 and 2000 € per month, (4) between 2000 and 2500 € per month and (5) 3000 € and above per month. Finally, for the self assessed health's measurement, we used a continuous scale (Pampalon et alii 1994), which has been commonly used in gerontological research in North America (Health and Social well being Canada 1993, Zimmer, Brayley and Searle 1995) and France for national surveys (DRESS 2005). The lower end of the

scale was (1) "*I feel in an extremely poor health*" and the upper end was (6) "*I feel in an excellent health*".

ANALYSIS

The segmentation has been achieved with a technique in two stages. First, travel motivations were factor analyzed and then cluster analyzed. Thus, senior travellers segments were generated, identified, and labelled. Then, the profile of each cluster has been detailed, thanks to a multiple discriminant analysis. Knowing that the discriminating variables were: the travel perceived risks, the subjective ages and the demographic variables.

The results of this segmentation might be useful for tourism marketers in order to target the senior travellers more successfully. However, it remains restrictive to better understand the role of the subjective ages on the senior travel behaviours. Hence, in order to complement the first results (revealed by the segmentation), a specific analysis of the relationships between the subjective age variables and the four travel behaviour variables (characteristics of the last trip, sources of information, travel motivations and travel perceived risks) was conducted. As the predictor variables were quantitative, a regression was performed on the quantitative tourism variables, and a discriminant analysis was performed on the qualitative tourism variables.

FINDINGS

Factor Analysis of the Travel Motives

The thirteen travel motivations items were factor analyzed with principal component analysis. As advised by Pedhazur and Pedhazur Schmelkin (1991), two analyses were performed: one involving an Oblimin rotation and another one involving a Varimax rotation. As the collinearity among factors was low, the principal component solution involving the Varimax rotation was selected. Four factors emerged with eigenvalues greater than one, which together explained 67% of the variance in the 13 travel motives' items (for the final sample). In interpreting and labelling the four factors we refereed to Ryan and Glendon (1998) previous research as the results agreed. These factors are displayed in Table 2.

Table 2. Travel Motivations Factors

Items	Communality score	Factor 1	Factor 2	Factor 3	Factor 4
Cronbach's Alpha Coefficient		0,82	0,81	0,85	0,76
Factor 1 : Social travel motivation					
M1. be with others	0,607	**0,753**	-0,093	0,019	0,177
M2. have a good time with friends	0,656	**0,807**	0,011	-0,061	-0,030
M3. build friendships with others	0,588	**0,754**	-0,071	0,118	-0,016
M4. develop close friendships	0,651	**0,797**	0,077	0,067	-0,069
M5. gain a feeling of belonging	0,481	**0,671**	0,081	0,156	0,016
Factor 2 : Relaxation travel motivation					
M6. relax mentally	0,666	0,034	**0,798**	0,100	0,136
M7. be in a calm atmosphere	0,699	0,035	**0,833**	-0,017	0,052
M8. relax physically	0,737	0,021	**0,857**	0,034	-0,039
M9. avoid the hustle and bustle of daily life	0,494	-0,079	**0,665**	0,211	-0,042
Factor 3 : Sport/competency travel motivation					
M12. use my physical abilities in sport	0,819	0,126	0,198	**0,874**	-0,002
M13. challenge my abilities	0,854	0,108	0,067	**0,915**	-0,021
Factor 4 : Intellectual travel motivations					
M10. increase my knowledge	0,753	0,018	0,002	-0,034	**0,867**
M11. discover new places and things	0,754	0,020	0,079	0,013	**0,864**

Then, for each respondent, and for each factor, a factor score was derived by computing the mean across each item contributing to that factor. Finally, these factor scores were entitled Motiv 1 (social motivation), Motiv 2 (relaxation motivation), Motiv 3 (sport/competency motivation) and Motiv 4 (intellectual motivation). They were used as inputs for a cluster analysis.

Cluster Analysis

The purpose of the cluster analysis was to identify senior consumers' groups that could be successfully targeted by marketers.

Both hierarchical and non hierarchical clustering techniques were used. First, a hierarchical classification on 90 randomly selected respondents was performed on the basis of the four travel motivations' factor scores. It resulted into a k = 2 groups proposal. Therefore, this number of clusters seeded the subsequent non hierarchical analyses that were performed on the final sample (of 300 respondents). The initial two clusters solution was then compared with clusters solutions of three, four, five and six. The first two - clusters solution was not satisfying as at the

end of the (10) iterations, no convergence (towards zero) has been detected. The three - clusters solution is satisfying since a convergence appears for each cluster before the 10th iteration, and the percentage of observations within each generated cluster was over 10%. The four - clusters solution was more satisfying than the previous one since: convergence existed, the percentage of observations per generated cluster was over 10%, and the clusters appeared as easily interpretable. Based on these criteria, the five and six - clusters solutions were not as satisfying. Consequently, the four - clusters solution was selected and clusters were labelled based on their travel motives' factors.

The seniors of the first segment (n=65) were called the *relaxed intellectual senior travellers*. They look for a combination of intellectual activities and relaxation while on holidays. They are reluctant to travel in groups and to practice any sport during their holidays. The seniors of the second segment (n=86) were called the *knowledge hunters senior travellers*. Above all, they look for intellectual improvement and discovery while on holidays. The seniors of the third segment (n=46) were called *the hesitating, non intellectual and non sportive travellers*. They have no major preferred travel motives. They could travel in group and like to relax while on holidays. They are not motivated at all by intellectual or sport activities. Finally, the seniors of the fourth segment (n=103) were called the *active and open minded senior travellers*. They look for sport and intellectual activities while on holidays. They could also look for some relaxation and are not reluctant to travel in group.

Finally, these four clusters were profiled using discrimating variables.

Profiling the Clusters using Discriminant Analysis

The four clusters were profiled using multiple discriminant analysis. The discriminating variables were: the travel perceived risks, the youth age, the discrepancy age and the demographic characteristics (the gender, the household incomes, the relationship situation, the educational level and the self assessed health).

We reduced the initial set of the nine travel perceived risks to a smaller number, by performing a factor analysis. A principal component analysis, involving an Oblimin rotation, was conducted on the nine travel perceived risks items. Two factors emerged with eigenvalues greater than one, which agreed with Roehl and Fesenmaier (1992). However, two items did not satisfy the usual threshold values. First, the communality of the satisfaction perceived risk reached 0.359 which was under the 0.40 threshold value (Stewart 1981). Second, the financial perceived risk item was not well represented on the two resulted factors. Indeed, the discrepancy between its loadings on each factor was under 0.100 (Stewart 1981). It is

interesting to mention that Roehl and Fesenmaier (1992) faced similar limits in their study since the financial perceived risk was not well represented within the resulted structure. In the present study, the two items were removed and a second principal component analysis was performed on the last seven travel perceived risks. This new analysis also resulted in a two factors solution. Since the collinearity between these two factors was not low (0.342), the solution involving the Oblimin rotation was selected (Pedhazur and Pedhazur Schmelkin 1991). The two travel perceived risks factors with eigenvalues over one, together explained 63% of the variance (for the final sample). The Cronbach's Alpha coefficients of each factor are acceptable (Nunnally 1967). In interpreting and labelling these factors we refereed to Roehl and Fesenmaier (1992) previous research as the results mostly agreed. These factors are displayed in Table 3.

Table 3. Travel Perceived Risks Factors

		Factor1	Factor2
Cronbach's Alpha Coefficient		**0,84**	**0,59**
items	Communality score		
Factor 1 : Physical – equipment perceived risks			
RP1 : Problems might arise with some amenities or facilities provided during holiday	0,689	**0,830**	0,301
RP2 : Problems might occur in travel arrangements or in getting to my destination	0,643	**0,799**	0,212
RP4 : I might become ill while on holiday	0,708	**0,840**	0,336
RP5 : I might be put in danger or get hurt during my holiday	0,625	**0,790**	0,302
Factor 2 : Time and psychological vacation perceived risks			
RP6 : My holiday might not reflect my personality or self-image	0,536	0,456	0,694
RP8 : Some people may get a negative opinion of me for taking such holiday	0,703	0,115	0,820
RP9 : Some aspects of my holiday might take too much time or be a waste of my time	0,499	0,334	0,699

Then, for each respondent, and for each factor, a factor score was derived by computing the mean across each item contributing to that factor. These two scores, entitled TPR1 (physical – equipment perceived risks) and TPR2 (time and psychological perceived risks), then became the discriminating variables involved in the multiple discriminant analysis.

Before performing a discriminant analysis, some properties should be verified for the set of quantitative variables. First the collinearity between variables should be low. The study of the correlation matrix revealed that this condition was verified. Second, in multivariate analysis, it is generally assumed that the observations are normally distributed. For this study, one of the most common methods of assessing univariate normality has been used: the Skewness and Kurtosis Test (Mardia 1970). Results revealed that the values were close to zero. Consequently, the multinormality condition was verified. Finally the condition of equity for the covariance

matrixes has been studied with the M Box Test. The results (Box's M = 163,904; F approx = 1,437; df1 = 108; df2 = 108986, 227; Sig. = 0,002) showed that the data did not verify this condition. However, discriminant analysis is considered as a robust procedure, particularly in the case of samples with more than 100 respondents. This was the case in this study (300). Therefore a multiple discriminant analysis was performed and the Table 4 gives the means of the nine discriminating variables for each of the four clusters.

Table 4. Variables' means and standard deviations for the four travel motivations clusters

	Segment 1 *the relaxed intellectual senior travellers*		Segment 2 *the knowledge hunters senior travellers*		Segment 3 *the hesitating, non intellectual and non sportive travellers*		Segment 4 *the active and open minded senior travellers*	
	mean	st. dev	mean	st. dev	mean	st. dev	mean	st. dev
*TPR1*****	*3,10*	*0,61*	*2,48*	*0,76*	*2,60*	*0,74*	*2,93*	*0,73*
*TPR2*****	*1,54*	*0,43*	*1,40*	*0,52*	*1,34*	*0,47*	*1,69*	*0,59*
*Educational level ** : university diploma*	*68%*		*63%*		*74%*		*36%*	
Self–assessed health	4,25	0,90	4,58	0,92	4,37	1,10	4,44	0,81
Gender : female	68%		57%		65%		56%	
Relationship sit.: in a relationship	80%		71%		65%		74%	
Household incomes*	*3,55*	*1,10*	*3,65*	*0,95*	*3,91*	*1,04*	*3,47*	*1,09*
Discrepancy age*	*12,80*	*9,18*	*9,49*	*7,49*	*12,08*	*9,80*	*11,26*	*8,34*
Youth age	11,03	5,84	12,11	7,70	12,65	6,24	11,78	6,83

** significant at 0.001 level   * significant at 0.05 level

Two statistically significant discriminant functions were identified. The first function ($\chi^2_{(f1)}$ = 87.202, p < .000) accounted for 59.3% of the variance, and consequently the second function ($\chi^2_{(f2)}$ = 36.248, p < .003) accounted for 36,7% of the variance. The two travel perceived risks factors, the discrepancy age, the educational level and the household incomes were significant discriminators among the four travel motivations segments. The classification for the four segments was not very satisfying since only 43.3% of the respondents have been correctly classified as belonging to one segment or another.

Nevertheless, these first results were interesting as seniors travel motivations profiles' characterization. Indeed, it appeared that senior travellers of the four segments were not highly concerned by travel risks, even if the physical and equipment risks would be those that would worry them the most. Surprisingly, the highest proportion of highly educated members was found within the *hesitating, non intellectual and non sportive travellers'* segment, which was also characterized by the highest household incomes. On the contrary, *the active and open minded senior travellers'* segment is characterized by the lowest proportion of highly educated

members and the lowest level of incomes. Finally, between the two subjective age variables, the discrepancy age is the only one that was a significant discriminator among the four clusters. This finding is already interesting since it may assume that (1) subjective ages' variables could influence the senior travel characteristics and (2) the ideal dimension of the age could be useful to describe the senior travel behaviours. Moreover, the highest values of the discrepancy age were reached within segments which shared the relaxation motivation as one of their travel motivations. Whereas the segment with the lowest value of the discrepancy age, the knowledge hunters senior travellers, is not characterized by this relaxation motivation. This may indicate that there is a specific relationship between the discrepancy age and the relaxation travel motivation, which would agree with the self actualization theory. The analysis of the subjective ages' influences on the senior tourism behaviours would help to answer this question and to better understand the specific role of the ideal age dimension.

The analysis of the subjective ages' influences on the seniors' tourism behaviours

In this analysis, the factors scores that were generated previously were used for the travel motivations and the travel perceived risks.

Regression analysis

Before performing the regression analysis, few conditions have been verified on the set of the quantitative tourism data. First, the correlation matrix revealed a low collinearity between variables. Second, no extreme observation has been detected through a Box plot graph analysis. Therefore, the regression analyses were performed and the results are displayed in Table 5 for the overall values of the subjective ages.

Table 5. Results of the regression analysis – subjective ages' influences on tourism variables

Predictor Variables		Cognitive age	Ideal age	Youth age	Discrepancy age
Tourism variables					
budget	Pearson Corr	-0,030	-0,012	0,072	-0,019
	Sig	0,305	0,417	0,106	0,372
Motiv1	Pearson Corr	-0,019	-0,048	0,013	0,021
	Sig	0,370	0,202	0,408	0,356
Motiv2	Pearson Corr	-0,042	*-0,165*	-0,064	*0,143*
	Sig	0,236	*0,002*	0,135	*0,006*
Motiv3	Pearson Corr	0,007	0,037	-0,009	-0,035
	Sig	0,449	0,261	0,437	0,272
Motiv4	Pearson Corr	-0,086	0,022	0,054	*-0,101*
	Sig	0,068	0,349	0,177	*0,041*
TPR1	Pearson Corr	0,040	-0,045	-0,078	*0,094*
	Sig	0,245	0,216	0,089	*0,050*
TPR2	Pearson Corr	*-0,154*	*-0,240*	0,056	*0,096*
	Sig	*0,004*	*0,000*	0,169	*0,049*

These results outlined the influence of the discrepancy age on the senior travel and tourism variables and agreed with the segmentation results (Table 4). Indeed, as it was assumed, it appeared that this age variable significantly and positively influenced the relaxation travel motivation (Motiv2). Besides, this variable seemed also to impact the intellectual travel motivation (Motiv4): the smaller the discrepancy age was, the more seniors would like to travel for intellectual improvement. This was the case for the knowledge hunters' senior travellers segment identified previously. What is more, is that discrepancy age also significantly influenced both travel perceived risks: the larger the discrepancy age was the more seniors would worry about travel risks. Therefore, the theoretical link, inspired by the role of the self actualization theory in the tourism behaviour, between the discrepancy age and the travel motivations and perceived risks, has been empirically revealed.

These results also revealed the influence of the ideal age on the relaxation travel motivation (Motiv2) and the time and psychological travel perceived risks (TPR2). The smaller the senior consumer's ideal age was, the stronger his/her relaxation to travel would be, and the more he/she would worry about the time and psychological travel risks. These results also agreed with the travel and tourism framework that emphasizes the role of the ideal self concept for the tourism consumption.

The fact that the cognitive age influenced the time and psychological travel perceived risks (TPR2) is also an interesting result since the impact of this restrictive variable on the senior tourism behaviours has not been investigated before. The younger the senior consumer felt, the more he/she would worry about psychological risks. This result confirmed previous research on the senior consumer that revealed a significant relationship between the cognitive age of the senior consumers and the level of risks they would have undertaken in buying situations (Stephens 1991).

Finally, the results on the youth age agreed with the segmentation results presented previously (Table 4). These results could not be strictly compared with Cleaver and Muller (1998) and Clever Sellick (2004) since this previous research focused on the individual components (Do and Feel) of the youth age. Here is one of the most frequently mentioned limits within tourism studies: the use of distinct scales (or calculation) to measure one concept entailed difficulties in the comparison of the results (Pearce 1993). In order to overpass this limit, for the study of subjective ages' influences on the travel motivations and perceived risks, another regression analysis was performed involving the individual values of youth age. Besides, even if no previous research had already investigated the role of the individual components of the discrepancy age, the interesting first results that we had obtained in this study with this variable

(cf Table 4 and Table 5) decided us to perform the analysis on these variables too. Detailed results are presented in appendix 1. The Table 6 presented a summary of the significant influences that have been revealed with these analyses.

Table 6. Summary of the significant influences of the individual values of youth age and discrepancy age on the tourism variables

Interest Youth age	Significant influence on	Motiv4	Positive relationship
Feel discrepancy age	Significant influence on	Motiv2	Positive relationship
Feel discrepancy age	Significant influence on	TPR2	Positive relationship
Look discrepancy age	Significant influence on	Motiv4	Negative relationship
Do discrepancy age	Significant influence on	Motiv2	Positive relationship
Do discrepancy age	Significant influence on	TPR1	Positive relationship
Interest discrepancy age	Significant influence on	Motiv4	Negative relationship

These results showed that only one individual component (Interest) of the youth age had a significant influence on the senior travel motivations. This finding agreed with Cleaver Sellick (2004) whose results indicated some influence of components of the youth age within the travel preferences of seniors. Concerning the discrepancy age's components, it appeared that each component had a significant influence on the seniors' travel perceived risks or travel motivations. Particularly, it is interesting to see that the smaller the ideal feel age of the seniors is in comparison to their actual feel age, the more they would be motivated to travel in order to relax. Besides, the smaller the ideal (Do) activities age is in comparison to their actual activities age, the more seniors would also be motivated to travel in order to relax. Therefore, these results on the individual components revealed new information that must be investigated in future research.

Discriminant analysis

Then, and finally, the predictive power of the subjective ages variables was tested on the five following tourism variables: the destination (France (1) or abroad (2)), the all inclusive characteristic (all inclusive (1) or not (2)), the reservation channel (in a local agency (1) or through the Internet (2)), the search for information before buying (research (1) or no research (2)) and the use of the Internet for collecting information (Internet (2) or other channels (1)). As these variables were all binary variables, discriminant analyses were performed. The required conditions for performing a discriminant analysis were tested and as a robust procedure, the analyses were performed. The results are displayed in Tables 7, 8, 9, 10, 11.

Table 7. Results of the discriminant analysis – Destination

Variable	Mean value group 1	Mean value group 2	Lambda of Wilks	univ. F	Sig.
Cognitive age	56,18	55,38	,998	,673	,413
Ideal age	44,49	44,56	1,000	,005	,946
Youth age	11,47	12,03	,998	,503	,479
Discrepancy age	11,78	10,84	,997	,935	,334

Table 8. Results of the discriminant analysis – Package

Variable	Mean value group 1	Mean value group 2	Lambda of Wilks	univ. F	Sig.
Cognitive age	56,32	55,35	0,997	0,963	0,327
Ideal age	44,72	44,40	1,000	0,096	0,757
Youth age	12,52	11,28	0,992	2,390	0,123
Discrepancy age	11,54	11,07	0,999	0,227	0,634

Table 9. Results of the discriminant analysis – Reservation Channel

Variable	Mean value group 1	Mean value group 2	Lambda of Wilks	univ. F	Sig.
Cognitive age	*56,30*	*53,68*	*0,983*	*5,109*	*0,025*
Ideal age	44,69	43,92	0,999	0,402	0,527
Youth age	11,86	11,48	0,999	0,163	0,687
Discrepancy age	11,57	10,12	0,995	1,543	0,215

Table 10. Results of the discriminant analysis – Search for information

Variable	Mean value group 1	Mean value group 2	Lambda of Wilks	univ. F	Sig.
Cognitive age	55,46	57,65	0,993	2,218	0,137
Ideal age	44,66	43,57	0,998	0,516	0,473
Youth age	11,82	11,46	1,000	0,093	0,761
Discrepancy age	*10,90*	*13,81*	*0,987*	*3,983*	*0,047*

Table 11. Results of the discriminant analysis – Use of the Internet as an information channel

Variable	Mean value group 1	Mean value group 2	Lambda of Wilks	univ. F	Sig.
Cognitive age	*57,75*	*53,00*	*0,921*	*25,551*	*0,000*
Ideal age	*45,61*	*43,05*	*0,979*	*6,469*	*0,011*
Youth age	11,89	11,63	1,000	0,106	0,745
Discrepancy age	12,01	10,24	0,989	3,341	0,069

These results mainly showed that cognitive and ideal ages influenced the use of the Internet of seniors in their tourism consumption. The younger they felt, the more they used the Internet either for searching information or for booking their travel. Besides, it appeared that the discrepancy age also influenced the search for information: the larger the gap is the less seniors would look for information before their departure. Finally, as previously, no significant influence has been revealed for the youth age.

The overall findings tend to support the majority of our hypothesis. H1 has been confirmed considering the impact of the ideal age on the seniors' relaxation travel motivation, time and psychological perceived risks and the Internet use for searching information before the departure. H2 has been confirmed considering the impact of the cognitive age on the seniors' time and psychological perceived risks, use of the Internet for the booking, and for searching information before the departure. H3 is the only hypothesis that has not been confirmed. Indeed no significant influence of the youth age on the seniors' travel and tourism variables has been revealed. Finally, H4 has been confirmed considering the impact of the discrepancy age on the seniors' travel perceived risks, relaxation travel motivation, intellectual travel motivation, and search for information.

DISCUSSIONS

The study of the influence of the subjective ages on the senior travel behaviours led to interesting results. First, no significant impact has been revealed for the youth age overall value. Nevertheless, that is an interesting finding. Indeed, since this variable influences the senior consumer behaviours in other areas, this finding may indicate that the nature of the consumption activity should be taken into account when studying the youth age for seniors. Moreover, the specific study of the individual components of this variable showed that a significant link existed between the Interest Youth age and the intellectual travel motivation. This result tends to confirm the previous research from Cleaver and Muller (1998) and Cleaver Sellick (2004) where the role of the youth age has been investigated with the individual components. Then, the cognitive and the ideal dimensions of the age seemed to influence the use of the Internet by the seniors in their travel and tourism consumption. The younger they feel, or the smaller their ideal age is, the more they tend to use the Internet to book their trip and/or to collect information before their departure. Besides, these two ages' dimensions influence the seniors' psychological travel perceived risks: the younger they feel or the smaller their ideal age is, the more they would worry about these risks. Finally, among the four subjective ages that have been investigated in this research, discrepancy age appeared to be the most interesting one in regard to the seniors' tourism consumption. Indeed, this variable was the one that influenced the senior travel behaviours the most (considering the number of influenced variables). This is a very interesting finding considering the fact that discrepancy age has been largely neglected by researchers. This may confirm the theoretical link between this discrepancy age and the tourism behaviour's conceptual framework, especially the self actualization theory

that involves a discrepancy between the actual and the ideal self concepts. Barak and Gould (1985) suggested that the discrepancy age would reflect an attitude towards self perceived age-roles: the larger the discrepancy is the more negative the attitude would be. Applied to the results that have been revealed in this research, this would mean that: the more seniors have a negative attitude towards their self perceived roles, the more they would worry about travel risks, and the more they would look for relaxation travel rather than intellectual travel.

Concerning the segmentation, four senior travellers segments have been generated and labelled, based on their travel motivations. The *relaxed intellectual senior travellers* (n=65) who look for a combination of intellectual activities and relaxation while on holidays. The *knowledge hunters senior travellers* (n=86), who look essentially for intellectual and discovery activities. The *hesitating, non intellectual and non sportive travellers* (n=46) who have the highest educational and income levels, but who have no major preferred travel motives. On the contrary to the *active and open minded senior travellers* (n=103) who have the lowest educational level and income levels and who look for sport and intellectual activities while on holidays. They could also look for some relaxation and are not reluctant to travel in group. Finally, the importance of the discrepancy age has also been revealed through the segmentation since it appeared to be a significant discriminating variable of the four segments. Hence, it may indicate that it could be a useful segmentation tool for the tourism senior market.

LIMITATIONS

It is important to outline the fact that respondents of the survey did not represent the French seniors' population well. Indeed, data have been collected in retired persons associations where the main activities were intellectual. Consequently, this may have biased our results and particularly the importance of the social and intellectual dimensions of the travel motivations. Therefore, it is important to perform a new survey on a more diversified population.

FURTHER RESEARCH

At the end of this study, it appeared that several future researches could be initiated. First, the subjective ages' measurements should be improved. Indeed a great number of questionnaires have been removed from the final sample since the subjective age items were ambiguous or hard to understand for the seniors. Therefore some research should focus on the improvement of these items. Moreover, we have to admit that the way the overall values (of the subjective ages) were calculated (the arithmetic average) seemed restrictive since it could mask interesting information, linked to the intrinsic nature of each item. Hence, it is important to build a new

calculation that allows preserving the relative importance and information carried by each component.

Finally, future research on the senior consumer behaviours must involve the discrepancy age variable. The first results that have been reached in this study are encouraging and it would be interesting to know if this variable also influences the senior consumer behaviours in other consumption areas, all the more as the ideal and the actual self concepts, linked to the discrepancy age, are two important elements for several consumption areas (Sirgy 1982).

MANAGERIAL IMPLICATIONS

Tour operators and travel providers who are interested by the French senior market could benefit from the segmentation that has been performed in this research. Travellers segments such as the *relaxed intellectual senior travellers*, the *knowledge hunters' senior travellers* and the *active and open minded senior travellers* could be very interesting for marketers since major travel motivations have been identified. Hence distinct travel and tourism offers could be built in order to answer their needs.

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Influence of the individual components of Youth age and Discrepancy age on seniors' travel motivations and perceived risks

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,662	0,074	49,805	0,000			
	Feel youth age	0,000	0,005	-0,185	0,853	0,000	-0,011	0,427
Motiv2	Constant	3,859	0,079	48,654	0,000			
	Feel youth age	-0,001	0,006	-0,269	0,788	0,000	-0,016	0,394
Motiv3	Constant	3,053	0,096	31,643	0,000			
	Feel youth age	-0,004	0,007	-0,629	0,530	0,001	-0,036	0,265
Motiv4	Constant	4,731	0,043	111,25	0,000			
	Feel youth age	0,001	0,003	0,357	0,722	0,000	0,021	0,361
TPR1	Constant	3,486	0,091	38,122	0,000			
	Feel youth age	-0,005	0,006	-0,816	0,415	0,002	-0,047	0,208
TPR2	Constant	1,856	0,078	23,805	0,000			
	Feel youth age	0,006	0,005	1,115	0,266	0,004	0,064	0,133

Table a. Results of the regression analysis – Feel Youth Age

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,668	0,077	47,619	0,000			
	Look youth age	-0,002	0,008	-0,268	0,789	0,000	-0,016	0,394
Motiv2	Constant	3,920	0,083	47,264	0,000			
	Look youth age	-0,010	0,009	-1,133	0,258	0,004	-0,065	0,129
Motiv3	Constant	3,021	0,101	29,870	0,000			
	Look youth age	-0,002	0,010	-0,208	0,835	0,000	-0,012	0,418
Motiv4	Constant	4,749	0,045	106,57	0,000			
	Look youth age	0,000	0,005	-0,158	0,875	0,000	-0,009	0,437
TPR1	Constant	3,461	0,096	36,092	0,000			
	Look youth age	-0,004	0,010	-0,442	0,659	0,001	-0,026	0,329
TPR2	Constant	1,862	0,082	22,778	0,000			
	Look youth age	0,008	0,008	0,956	0,340	0,003	0,055	0,170

Table b. Results of the regression analysis – Look Youth Age

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,610	0,080	45,209	0,000			
	Do youth age	0,003	0,005	0,616	0,538	0,001	0,036	0,269
Motiv2	Constant	3,946	0,086	45,942	0,000			
	Do youth age	-0,008	0,006	-1,439	0,151	0,007	-0,083	0,076
Motiv3	Constant	3,062	0,105	29,217	0,000			
	Do youth age	-0,005	0,007	-0,665	0,507	0,001	-0,038	0,253
Motiv4	Constant	4,739	0,046	102,54	0,000			
	Do youth age	0,000	0,003	0,120	0,904	0,000	0,007	0,452
TPR1	Constant	3,523	0,099	35,493	0,000			
	Do youth age	-0,007	0,006	-1,158	0,248	0,004	-0,067	0,124
TPR2	Constant	1,858	0,085	21,917	0,000			
	Do youth age	0,005	0,006	0,965	0,335	0,003	0,056	0,168

Table c. Results of the regression analysis – Do Youth Age

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,626	0,075	48,070	0,000			
	Int youth age	0,002	0,004	0,407	0,684	0,001	0,024	0,342
Motiv2	Constant	3,904	0,081	48,837	0,000			
	Int youth age	-0,004	0,005	-0,935	0,351	0,003	-0,054	0,175
Motiv3	Constant	2,921	0,099	29,541	0,000			
	Int youth age	0,006	0,006	1,013	0,312	0,003	0,059	0,156
Motiv4	*Constant*	*4,660*	*0,043*	*107,75*	*0,000*			
	Int youth age	*0,006*	*0,002*	*2,356*	*0,019*	*0,018*	*0,135*	*0,010*
TPR1	Constant	3,545	0,094	37,882	0,000			
	Int youth age	-0,008	0,005	-1,544	0,124	0,008	-0,089	0,062
TPR2	Constant	1,888	0,080	23,561	0,000			
	Int youth age	0,003	0,005	0,590	0,555	0,001	0,034	0,278

Table d. Results of the regression analysis – Interest Youth Age

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,642	0,067	54,563	0,000			
	Feel discrepancy age	0,001	0,004	0,166	0,868	0,000	0,010	0,434
Motiv2	*Constant*	*3,737*	*0,072*	*52,207*	*0,000*			
	Feel discrepancy age	*0,009*	*0,005*	*1,905*	*0,048*	*0,012*	*0,110*	*0,029*
Motiv3	Constant	2,988	0,088	34,096	0,000			
	Feel discrepancy age	0,001	0,006	0,227	0,821	0,000	0,013	0,410
Motiv4*	Constant	4,746	0,039	122,89	0,000			
	Feel discrepancy age	0,000	0,002	-0,091	0,927	0,000	-0,005	0,464
Ris1	Constant	3,361	0,083	40,500	0,000			
	Feel discrepancy age	0,005	0,005	1,027	0,305	0,004	0,059	0,153
Ris2	*Constant*	*1,795*	*0,070*	*25,554*	*0,000*			
	Feel discrepancy age	*0,011*	*0,004*	*2,454*	*0,015*	*0,020*	*0,141*	*0,007*

Table e. Results of the regression analysis – Feel Discrepancy Age

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,569	0,075	47,627	0,000			
	Look discrepancy age	0,006	0,004	1,328	0,285	0,006	0,077	0,093
Motiv2	Constant	3,736	0,81	46,267	0,000			
	Look discrepancy age	0,008	0,005	1,600	0,111	0,009	0,092	0,055
Motiv3	Constant	3,105	0,098	31,550	0,000			
	Look discrepancy age	-0,007	0,006	-1,259	0,209	0,005	-0,073	0,104
Motiv4	*Constant*	*4,810*	*0,043*	*111,26*	*0,000*			
	Look discrepancy age	*-0,005*	*0,003*	*-1,862*	*0,062*	*0,012*	*-0,108*	*0,031*
Ris1	Constant	3,394	0,094	36,275	0,000			
	Look discrepancy age	0,002	0,006	0,414	0,679	0,001	0,024	0,340
Ris2	Constant	1,851	0,080	23,229	0,000			
	Look discrepancy age	0,005	0,005	1,155	0,249	0,004	0,067	0,125

Table f. Results of the regression analysis – Look Discrepancy Age

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,660	0,062	59,436	0,000			
	Do discrepancy age	0,000	0,004	-0,195	0,845	0,000	-0,011	0,423
Motiv2	*Constant*	*3,742*	*0,066*	*56,754*	*0,000*			
	Do discrepancy age	*0,009*	*0,004*	*2,102*	*0,036*	*0,015*	*0,121*	*0,018*
Motiv3	Constant	2,995	0,081	30,045	0,000			
	Do discrepancy age	0,001	0,005	0,152	0,880	0,000	0,009	0,440
Motiv4*	Constant	4,761	0,036	133,76	0,000			
	Do discrepancy age	-0,002	0,002	-0,686	0,493	0,002	-0,040	0,247
Ris1	*Constant*	*3,312*	*0,076*	*43,516*	*0,000*			
	Do discrepancy age	*0,011*	*0,005*	*2,082*	*0,038*	*0,014*	*0,120*	*0,019*
Ris2	Constant	1,856	0,065	28,469	0,000			
	Do discrepancy age	0,007	0,004	1,523	0,129	0,008	0,088	0,064

Table g. Results of the regression analysis – Do Discrepancy Age

		Coefficients (non standardized)		t	sig	R²	Cor (X,Y) Pearson	Sig (correlation)
		B	Error					
Motiv1	Constant	3,636	0,054	66,996	0,000			
	Int discrepancy age	0,002	0,004	0,447	0,655	0,001	0,026	0,327
Motiv2	Constant	3,788	0,058	64,922	0,000			
	Int discrepancy age	0,006	0,004	1,498	0,135	0,007	0,086	0,068
Motiv3	Constant	3,039	0,071	42,679	0,000			
	Int discrepancy age	-0,004	0,005	-0,812	0,418	0,002	-0,047	0,209
Motiv4	*Constant*	*4,802*	*0,031*	*155,37*	*0,000*			
	Int discrepancy age	*-0,007*	*0,002*	*-3,114*	*0,002*	*0,032*	*-0,178*	*0,001*
Ris1	Constant	3,382	0,067	50,126	0,000			
	Int discrepancy age	0,005	0,005	1,057	0,292	0,004	0,061	0,146
Ris2	Constant	1,912	0,058	33,155	0,000			
	Int discrepancy age	0,002	0,004	0,410	0,682	0,001	0,024	0,341

Table h. Results of the regression analysis – Int Discrepancy Age