

VENICE, JANUARY 17TH – 19TH 2019

18TH INTERNATIONAL MARKETING TRENDS CONFERENCE

Marketing Trends Congress Academic Research Sessions January 18th – 19th 2019

The Marketing Trends Congress offers a great variety of research sessions. The authors come from 50 countries and include experienced academics as well as a number of younger researchers.

The papers are presented in English, French, German, Italian and Spanish. This has resulted in a rich cross-fertilization of ideas and perspectives.

Marketing Strategy Forum Friday 18th January 2019

The Marketing Strategy Forum is dedicated to business and operational issues. The speakers of the Marketing Strategy Forum are all top business managers who come and share their experiences and their views with the conference participants and researchers.

Ph.D. Students Doctoral Colloquium Thursday 17th January 2019

The Doctoral Colloquium is dedicated to outstanding doctoral students at an intermediate or advanced stage of their dissertation process, that are interested in new trends and developments in research in marketing.

Post-Doc Forum Saturday 19th January 2019

The Post-Doc Forum is open to Ph.D. students at an early stage of their career in marketing. It includes research workshops with short paper presentations and also all sorts of other opportunities to develop academics and research skills such as roundtables or seminars on specific topics (i.e. open access publishing, ethical practices and integrity in research...) with interactions with senior academics and marketing professionals.

Poster Session Friday 18th January 2019

The Poster Session is an opportunity to meet other researchers who share similar interests. The participants are invited to exhibit paper posters (A1 size) illustrating their research field, methods and outcomes.

Marketing Trends Award Friday 18th January 2019

The Marketing Trends Award is an international award that aims to honor researchers for their overall achievements in the field of Marketing Trends. The award is officially handed to the laureates at the Marketing Trends Conference.

Best Thesis Award Thursday 17th January 2019

The International Best Thesis Award is given to recognize and encourage Ph.D. students in Marketing and emphasize their talent. The International finalists are invited to present a 20 minutes oral defense of their thesis in English.

Elyette Roux Best Thesis in Luxury Prize Friday 18th January 2019

The Elyette Roux Best Thesis in Luxury Prize is meant to acknowledge and support Ph.D. students that have written a thesis on a topic linked to the Marketing of Luxury Industries. The prize is sponsored by one of the major luxury brands.

Registration

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The Journal of Marketing Trends (JMT) is published by the Marketing Trends Association (Paris-Venice Association). The Journal of Marketing Trends is positioned as the academic publication dedicated to Research on the Marketing Trends and to supporting its development.

All articles are evaluated through a double blind review process which is ensured, first by the Country Editorial Board (2 anonymous reviewers) and secondly by the Board of Editors (anonymous international reviewing process). The papers are an original material that has been neither published nor presented elsewhere, and that respects research ethics guidelines.

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PRODUCTION

Journal layout and composition

Marie-Laure Bugnicourt

Printing company

Printed in France - Europe Media Publication

SUBSCRIPTION

The Journal of Marketing Trends is a quarterly publication.

Annual Subscription Rate

Subscription for 4 issues:
390 Euros paper printed edition sent by mail.
Subscription form at the end of the Journal.

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Is a company's hospitality characterized by its visits? Hospitality experiences and cultural dimensions observed through Swiss and French company visits

Abstract

The objective of this article is to characterize the company visit as a situation of hospitality and understand how it can be a differentiator. Thus, it addresses managerial concerns about the transmission of expertise or craftsmanship and visitor relations. This exploratory work serves two purposes: it primarily aims to introduce the concept of company hospitality into the marketing literature by understanding and completing the following dimensions of company hospitality: social and behavioral, spatial, temporal, convivial, physical, hedonistic and spiritual. Then it tries to understand visitor responses and reactions to hospitality, or on the contrary, the inhospitable nature of the company.

Key words: company visit, hospitality, culture, experience

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Introduction

Over the past few years, industrial tourism has gained momentum under the influence of territorial positioning in regards to expertise or craftsmanship specific to its region or local communities. Increased consumer interest in themed company visits has also contributed to growth in industrial tourism (Bianchini, 2008, Ksouri et al, 2000). Tourists are offered several different concepts: company visits are different from company museums (Meysonnat-Courtois, 1994; Morice, 2006; Pierre, 2005; Rivard, 2006; Cousserand, 2009). A company's museum space can serve as a means of business promotion both in terms of communication and marketing. It can also serve as a catalyst to strengthen its historical, industrial heritage (Hollenbeck et al. 2008; Courvoisier, 2014). The company visit adds to those attributes by solidifying its management and highlighting its expertise and trade dynamics. This concept appeals not only to large companies but also to SMEs and artisans.

Company museums and company visits are rarely the object of marketing studies: in fact, the majority of references found here within come from museum specialists and art historians. What's more, due to their experimental nature, these windows into the company share a common goal: hosting, through leisure activities, a public motivated by their interest in discovering specificities inherent to different localities and trades. In this way, the concept of hospitality (Williams, 2006; Cova and Giannelloni, 2015) will leverage a better understanding of its importance and contribution to the visiting experience.

The objective of this article is to characterize the company visit as a situation of hospitality and understand how it can be a differentiator for companies located in a particular geographical area. Consequently, certain managerial concerns are addressed. We find very little references relating to hospitality in the context of industrial tourism. This exploratory work serves two purposes: it primarily aims to introduce the concept of company hospitality into marketing literature by understanding and completing the dimensions of company hospitality highlighted by Brotherton (2006) and by Cova and Giannelloni (2015). It then tries to understand visitor responses and reactions to hospitality or, on the contrary, the inhospitable nature of the company.

The scope of the study includes a diversified cross section of visits offered by approximately ten Swiss and French companies. According to literature, a situation of hospitality includes four dimensions: spatial, social and behavioral, temporal and physical (Brotherton, 2006), to which we add convivial

and hedonistic aspects of that experience introduced by Cova and Giannelloni (2015). We assume that hospitality also represents a moment of interaction whereby the centerpiece is the cultural identity specific to regional characteristics. It also creates ties between personnel and the visitor. In exchange, the visitor shows gratitude and admiration towards personnel who has shared its passion and communicated its expertise or craftsmanship. This acquired knowledge renders the price of the visit more acceptable. The spiritual dimension is also included in our research. In the context of company visits, the specificities of hospitality lead us to questions about cultural hospitality and how it can be incorporated or conceived of in a nontraditional manner in hopes of strengthening ties between the company and its brand or brands, simultaneously turning satisfied visitors into genuine ambassadors. We can extend this reflection to company museums, where they exist.

1. The company as a museum space: the commercial, communicative and managerial impacts

In a study on Swiss watch making company museums, Courvoisier (2014) reveals a threefold function: first, the preservation of a private heritage which each visitor perceives during their visit, second, brand promotion and third, highlighting a region's craftsmanship. None of the museum curators that were questioned found contradiction between history and marketing, past and present. On the contrary, company hospitality allowing visitors to discover a company's history and heritage tends to strengthen an emotional and positive brand experience, which is in line with the experiential marketing trend (Filser, 2002; Roederer, 2012; Roederer and Filser, 2015). The dimension of hospitality is especially felt during visitor welcoming and during their exchanges with guides and other personnel conducting the visit. An aperitif or small gift following a visit further strengthens the positive emotion felt by the visitor regarding the company's hospitality. The reaction to this hospitality perceived by the consumer was not studied and leaves open the question of gratitude expressed by the client in regards to personnel and the company.

For companies that do not have a museum, but that more or less regularly open their doors to a large public or only to their clients, to the press or other targeted audiences, the company visit can become a sort of event (Courvoisier, 2014). For example, the group LVMH's "Special days" attracted more than 100,000 people for each of their events from 2011 to 2013 and 145,000 in 2016¹. On Twitter, 25

million people were reached by #LJPLVMH and 30,000 interactions were achieved on Facebook during this "Special Days" weekend which boasted a carefully constructed organization and welcoming both in France (especially Louis Vuitton, Moët and Chandon, Hennessy and Dior) and Switzerland (Zenith and TAG Heuer).

The company visit allows the company to create an experience founded on a fully developed, lively, stimulating, thought-provoking communication (Rivard, 2006). On a managerial level, the company visit tends to strengthen the brand's appeal and, thus, can lead to a spontaneous purchase if the company has a retail store available at the end of the visit. This is especially true for food products tasted during the visit, such as sweets or wines.

In the context of territorial development plans, the company visit can be an integral part of industrial tourism whereby specific circuits are included such as "Wine Routes" in Alsace or Jura, the French-Swiss "Watch Valley" located between Besançon and La Chaux-de-Fonds or even the "*Etoiles Terrestres*" which highlights a constellation of glass-blowers covering three sites nestled in adjacent valleys of the *Vosges du nord* where one can discover a natural and cultural heritage preserved by man. Recognized as a UNESCO World Heritage landmark in 2009 for its urban watch making heritage, the cities of La Chaux-de-Fonds and Le Locle invite visitors, through their tourist offices, to discover historical buildings and watchmaking companies whose hospitality contributes to its regional tourism (Courvoisier and Aguilhaume, 2010).

2. Dimensions of tourist hospitality in the framework of industrial tourism adapted to company visits

2.1 Bringing the company and its territory together in the framework of a tourist destination

When examining its latin roots, the word "*hôte*" has a double meaning. It describes both the person who hosts as well as the person invited, or guest. Hospitality appears, then, to have two meanings (Cova and Giannelloni, 2015). When hospitality plays a role in tourism, it produces interpersonal interactions of a hospitable nature (human dimension: Brotherton, 1999) that go beyond a simple room and board offered/given to visitors and actually brings together hospitality and conviviality (social dimension: Gotman, 2004). The result has an influence on the general appeal of the area in question (spatial dimension). Together, these dimensions constructs a scene whereby the visitor is exposed to different players of tourism (population/residents,

service providers for private entities and public organizations) with specific offers (room and board) and in specific places (territories) (Cova, 2010).

In the framework of tourism, such as hotel stays or restaurants, certain authors study the human relations between tourists and the personnel with whom they are in contact (Spielmann et al. 2011). Others include the destination, such as the city (Cottet et al. 2015). We rarely see studies focused on the "host" company that places its personnel, endowed with a certain expertise or craftsmanship, in a situation of hospitality. In this situation of hospitality, we find a mix of elements both tangible (providing a finished product) and intangible (communicating an expertise or craftsmanship) (Cova and Giannelloni, 2008). The common value of these different fields of study is, however, quite real: visitors passing through (tourists) choose their destination, the city, then their hotels, restaurants and company visits. On the other hand, local tourists are motivated primarily by the opportunity to learn about an area's economy, its traditions and its expertise or craftsmanship (meeting artisans, skilled workers). Even though they are motivated by different factors, tourists and local residents are interested in company visits as a way to learn about a region. In this spirit, both the company and the region should extend their hospitality. Consequently, the combination of both elements appears quite relevant.

2.2 Company hospitality

Adapted to company visits, the hospitality of a person traditionally thought of as a host blends with an organization's differentiating service offer intended for visitors. Differentiating themes can be attributed to a particular region, a cultural identity or an expertise or craftsmanship. Lugosi (2008) differentiates between the concept of hospitality, how we live together as defined by Montandon (2004), and hospitality activities, "which consists of inviting a public to experience a moment of consumption or hospitality". Applied especially to tourism and accommodations sectors, the concept of hospitality has more recently been introduced to the virtual world to bring a humanistic approach to retail Internet sites (Bataoui and Giannelloni, 2016). These authors examine the links between retail companies and the customer. Hemmington (2007) defines five possible dimensions of hospitality in an observed commercial framework: host-guest relationship, generosity, the dramatization of an offer, surprise and a reassuring context.

It is along this line of research that we wish to further explore the role of hospitality in industrial tourism practices. For this, we reserve an important role for

“host” companies from other economic sectors and personnel whose mission is not necessarily dedicated to welcoming. For the visitor, a company visit is a leisure activity centered on human interaction and sharing. As we mentioned above, we will use the works of Brotherton (2006) to define this situation of hospitality, which is characterized by four dimensions: a spatial dimension, illustrated by the place; a behavioral dimension, which includes motivations and human interactions; a temporal dimension relative to occasions of hospitality and a physical dimension, which includes associated products. Like Cova and Giannelloni (2015), we will introduce a convivial and hedonistic aspect to the experience. For each of these aspects, we will attempt to identify the role of the company, personnel and the region. We will also examine visitor reactions to hospitable companies.

2.3 The specificities of company hospitality: commercial and free aspects

The commercial aspect of hospitality deals with the mechanisms of retribution carried out by the visitor for the benefit company’s benefit. This prerogative, founded on a desire for reciprocity, requires us to widen the scope of the hospitality transaction to include a genuine hospitable interaction, defined as mutual acknowledgment. One possible way of achieving this is to combine hospitality and a hospitable behavior (Lugosi, 2008).

These two elements are combined in company hospitality: a service offer that guarantees interactions and access to a shared experience rich in emotion. The company visit actually invites visitors to a paid or free entry into their authentic production site (laboratory, thematic workshop, factory, brewery, cellar, etc.) with the possibility of tasting, trying their hand at manufacturing and boutique purchases, which generally end the visit. In this situation, the interaction between the customer and the company takes place during the transmission of knowledge and teaching of an expertise or craftsmanship. Rooted in a region’s tradition and its very fabric, these experiences have an authentic nature. Consuming this kind of industrial tourism can lead a customer to feel a form of gratitude towards the personnel, trade, brand or region. So, there is a connection between visitor-consumer reactions to company hospitality.

3. Identifying industrial and hand craftsmanship hospitality and visitor perception

3.1 Methodological protocol

Based on a selection process, two lists were compiled comprised of companies that organize company visits. The first list includes companies from Alsace (France) and the second from French-speaking Switzerland. These companies demonstrate an industrial economic heritage in their two respective regions. The French region is located in Alsace, traditionally rooted in a regional gastronomy (ginger bread, beer, wine) and specific hand craftsmanship (glass work). The Swiss region is located in the French-Swiss Jura Arc, traditionally known for watch making and regional products (wine, cheese, chocolate, watch making). These companies were selected based on two criteria: first, they regularly open their doors to the public and, second, they are sufficiently diversified in terms of size and activity sector (table 1).

Internet sites of the selected companies, recent commentaries on TripAdvisor and certain blogs that present their visits in Alsace² or elsewhere³ were consulted in order to construct a compilation of opinions about these company visits. Web users are French and Swiss, spread out over the whole territory and from outside borders. One objective of this exploratory research is to identify the constitutive criteria of a company’s perceived hospitality in the framework of a company visit. The other objective is to identify possible visitor reactions when they are the invited guest.

Table 1: presentation of the studied companies

Selected companies	Regional location
<i>Maison Lips</i> gingerbread museum and workshop visit	Located in Gertwiller, France. Gertwiller has been Alsace’s gingerbread capitol since the 18th century. <i>Maison Lips</i> gingerbread and Alsatian folk art museum was created in 1998.
Saint-Louis Brewery	Located in the south of Alsace

2 <http://www.mon-week-end-en-alsace.com/>

3 <http://www.yapaslefeuulac.ch/>

The <i>Grand Place</i> , crystal museum	Museum inside the oldest French crystal manufacturer located in Saint-Louis, one of the three sites on the “ <i>étoiles terrestres</i> ” circuit.
Horcher, Alsatian wine	The Horcher estate is situated in the Alsatian vineyard.
Kelsch weaving workshop	Located in Sentheim, France in Alsace’s Hautes-Vosges (southern region).
St-Pierre Priory and Mauler cellars, Môtiers	Val-de-Travers, Switzerland (part of the Neuchâtel canton); specializing in sparkling wines crafted according to the champagne method; film, guided visits of the cellars and Priory, tasting
Cailler chocolate factory, Broc, Switzerland	Region of Gruyères, Switzerland, Fribourg canton
Spielhofer cheese dairy, Saint-Imier, Switzerland	Saint-Imier (Erguël) Valley, Switzerland, Berne canton; specializes in “ <i>Tête de Moine</i> ” cheese
Corum watches, La Chaux-de-Fonds, Switzerland	Neuchâtel canton, located in the “urban watchmaking” area and part of the UNESCO World Heritage list
Franches-Montagnes (BFM) Brewery	Saignelégier, Switzerland, canton of Jura; specializing in handcrafted beers

3.2 The social and behavioral dimension of hospitality

This dimension includes elements of interactions that contribute to conviviality, exchanges and communicating a passion. Human relations between tourists and local residents and contact persons highlighted by Cinotti (2008, 2001) are observed in industrial tourism. The host is either identified according to their trade “... accompanied by the brewer”; “the farmer himself leads the visit”; “we were welcomed by Thomas, who described his passion to us...”; “...we met with the reporter responsible for layouts, printouts...”; “a former skilled worker” or, in a more personal manner, by their first names, which denotes the genuine closeness found in tourism, especially with owners of bed & breakfasts, “the Kelsch weaving workshop is run by Marlène and Gérard”. The visitor is fully immersed into the world he/she discovers “in entering the company...”, “sharing an experience, entering into the secret world of watchmaking”, during which time the artisan shares his knowledge and craftsmanship. The testimonials highlight the sentiment of sharing someone’s “environment” (Ricoeur, 1998) and, as a result, the potentially immersing experience in all its various forms: “historically and culturally enthralling”. It is pointed out when the tour takes on a spatial dimension, “the museum hangs over the workshops” offering the visitor another type of immersion in the production site.

Openness, attentiveness and interpersonal exchanges are appreciated because they allow visitors to interact and also because they are the catalyst for communicating a passion and/or craftsmanship. “... they really know how to welcome visitors: explanations, films and tastings all make this visit worthwhile...”. “Marlène shows us how the weaving trade works and answers all of our questions”; “professionalism and passion are words that perfectly describe the estate’s owner who led our visit! ”; “Mr. Horcher willingly partakes in the tastings he offers you”. Interpersonal interactions are omnipresent: “you can easily ask for explanations from the available personnel”; “you can ask questions, the visit is lively and passionate”. When personnel doesn’t actively participate in the visit, we can simply observe them at work “...all while observing personnel at work”. Commentaries from a third person add “...skillfully explained, using anecdotes from the trade”. Openness is imperative “don’t hesitate to ask”. In the absence of true interactions, descriptions of the tour guide take on a generic name “... the guide” and are filled with negative commentaries “after watching a short film (very outdated), we visited a still room followed by a visit to the storage and bottling room while listening to the guide’s explanations”. During open house visits, artisans are not necessarily inclined to provide explanations or foster exchanges, which may lead to legitimate disappointment. “...we take a walk around the room and we are completely ignored... No one came to see if we had any questions or if we needed any explanations... ”. Hospitality should be free and willful. In the context of an artisan in his/her work environment, their personality and level of empathy are determining factors.

The reciprocity of hospitality encompasses generosity (Hemmington, 2007) and the subsequent gratitude and admiration expressed by the visitor: “hats off to all of the personnel”; “we met people whose dexterity and inspiration are genuine masterpieces”; “their craftsmanship is astounding”. The commercial aspect of reciprocity, inherent to the company, should not overshadow the importance of human relations or the authentic experience of discovery.

The verbatim demonstrates that the process of welcoming and its quality, although it involves every actor, does not necessarily make a customer a guest (Seydoux, 1983). Interpersonal interactions with working per-

sonnel and an interconnection with the host's region are vital elements. Spatial dimension is addressed in relation to the company's region and its regionalization.

3.3 The spatial dimension of hospitality

This dimension refers to the characteristics of a place (factory, workshop, enterprise location) which has been opened for sharing between the visitor and the host (Reuland et al. 1985). It bears regional specificities featured during these visits. Spatial dimension is centered around three concepts: the exterior environment: "from the outside, the museum doesn't resemble much, but on the inside, its fantastic", the environment on the inside: "the museum is located inside the manufacturing site, which is highly appreciated", the regional environment: "how rewarding it was to come upon this little village nestled in the forest lost in the middle of nowhere".

References to the region and its characteristics are remarkable. They are reflected in Alsatian artifacts: "a boutique not only full of delicacies but also all types of Alsatian artifacts", in the theatricality lent to the space "The reproduction of a typically Alsatian "stube" and the Hansel & Gretel house are the museum's key elements" and go beyond the offer's physical aspects "...finally, thank you Sophie for all the local tips and information, especially the *tartes flambées*". Ties between the company, the expertise or craftsmanship and the heritage are expressed: "we hope to preserve this lovely French heritage for many years to come". The place takes on meaning when the history of both the trade and the region are blended: "Here, we see the history of crystal blended with the history of the region and its excellent craftsmanship"; "the factory is nestled in the wonderful region of Gruyères".

The *Franches-Montagnes* Brewery (BFM), in Saignelégier, is one of the region's tourist attractions situated on the outskirts of major crossroads: it welcomes 3,000 visitors a year. An anecdote, rehashed during every visit, embodies the spirit of the brewery: "We had a cat that we named Good Dog. When it died, we sanctified it with the *Saint-Bon Chien* Abbey. We are now at our 5th vintage of this beer matured in oak barrels" affirms Jérôme Rebetz, the brewery's founder and director. This *Saint-Bon Chien* Abbey won over Eric Asimov, famous New York Times gourmet food critic. In a January 7, 2009 article, this full bodied beer was deemed world's best oak-barrel-aged beer (Jaberg, 2009). Hospitality also means revealing your roots.

3.4 The temporal dimension of hospitality

Company visits are motivated by the desire to discover a craftsmanship. For this reason, visitors expect to be able to interact with artisans at work. Their presence and availability are more important than the length of the visit: "... excellent explanations about gingerbread fabrication all while watching personnel at work". In this spirit, visits that take place outside of working hours negatively impact the customer's experience: "The tour's elevated circuit makes it possible to visit the factory during working hours with a former skilled worker rendering the experience especially unique"; "the visit can be accomplished in 30 min. or two hours if we take the time to listen to commentaries and admire the works of art"; "it's best to go during the week to see the watchmakers at work"; "we organize guided visits of the Brewery from Monday to Saturday between 9:57 am and 4:34 pm".

The visitor takes the time to really capture the company's facilities: "...by taking the time to admire, you'll discover the secrets during the factory visit". But, as victims of their own success, company visits can be nonproductive: "we arrived at 3 pm and they told us there was a three-hour wait for the next guided visit and that visits without guides were not possible. Disappointed, we went to the boutique to buy some chocolate. A mind-blowing trip.... we left disgusted. Great Swiss hospitality!".

Time also conjures up direct ties between past and present: "historical and cultural immersion into the ancient handcrafted art that is still very much alive"; "the place is incredible and seems as if it comes from another era" and indirect ties by connecting a region's modernity and authenticity: "the renovation blends perfectly into the historical building"; "It's unfathomable to think that monks have lived in this Priory since the Middle ages!". This voyage through time conjures up nostalgic sentiments for the visitor (Joy and Sherry, 2003).

3.5 The physical dimension (tangible and intangible)

Products are pervasive in industrial tourism and are a translation of craftsmanship and of a region's unique traditions. Products are the commercialized end result of careful crafting. Tangible aspects (products) and intangible aspects (explaining a craftsmanship) are connected: "...I appreciate the fact that even laymen like me can understand the process. Technical questions about watch making can be answered without going too much into detail. This may however disappoint connoisseurs. Nevertheless, the guide is available to answer any ques-

tions, making the visit interactive and enabling you to discover more about the things that interest you the most! ”.

It is brought to our attention when the organization of discovery tours has a formative nature, notably to justify the visit's commercial aspect: "...it should be noted that the visit's circuit does not end in the boutique. You are not pushed into buying, but nearly everyone willfully enters the boutique to buy the delicious handcrafted gingerbread". The purchases are an attempt to continue the journey (notably, at home), to remember the experience or to please someone (gift).

Although, as a general rule, generosity and commercial activities relating to hospitality in tourism are contradictory (Heal, 1990), they are simultaneously well managed and fully integrated during formative tours: for example, the presence of a boutique and prices found within are more easily accepted thanks to explanations given during the visit that justify the product's quality and cost (according to the different stages of fabrication). As a consequence, an organizational structure whereby the tangible and intangible are mixed creates favorable preconditions for company hospitality (Cottet et al. 2015).

3.6 The convivial and hedonistic dimension of hospitality

In the framework of industrial tourism, the company visit should respond to a desire to explore an unknown subject area. The convivial dimension invokes elements relating to entertainment or leisure (Lugosi, 2008): "... visiting the factory and the museum was an extremely interesting moment that inspired daydreams about all the beautiful objects we have seen". Emotions were heightened: "...then we went upstairs, surprise! We find relics of an 18th century house and the gingerbread museum, designs, explanations, ancient objects"; "what a pleasure to see skilled workers passionate about their work"; "this is a great moment to be had"; "a glass factory is synonymous with inspiration, an adjacent boutique let's you move from daydreaming to reality". This verbatim demonstrates the importance of hospitableness, as defined by Lugosi (2008), as an emotion shared with the visitor.

Developing an entertaining tour in the spirit of a treasure hunt will surprise the visitor: "organizing a museum layout over several floors in a spiral formation is an original idea"; we don't get lost in an

endless succession of rooms. Ramps along the tour allow you to reach the top..."; "a fun, family activity that uncovers a part of *Maison Cailler's* production line!".

When the company makes food products, the hedonistic dimension is especially demonstrated in company visits that are followed by tastings. For example, BFM proposes the following concept "brewery visit + seasonal product tasting + aperitif comprised of *tête de moine* (cheese), *totché* (pastry made with sour cream), dried sausage and wood-fired bread".

3.7 The spiritual dimension of hospitality

We can add a spiritual dimension to the dimensions mentioned above, which we have discovered in places laden with history or closely connected to the values of the owners-operators, as cited, for example, by Jean-Marie Mauler, owner of the company bearing his name: "The *Saint-Pierre* Priory has long since been one of the region's great religious centers. This is, of course, due to its spirituality, but also to its hospitality and conviviality which characterize the site. I have always preached daily serenity and quality relationships. This is all part of a life philosophy (Coopération, 2016).

Discussion, limits and research avenues

The objective of these works was to identify the building blocks of a company's hospitality and to assess visitor reactions brought about through reciprocity. Ultimately, the five dimensions of hospitality, identified by Brotherton (2006) and Cova and Giannelloni (2015), are perceived and appreciated by visitors. They were specified in the framework of company hospitality. Numerous similarities between French and Swiss hospitality have been brought to light: (1) the first is the presence of a trade expert who interacts with the visitor by sharing his expertise or craftsmanship (communicating a passion). The personnel's' role in a situation of hospitality is first and foremost to communicate a passion rather than simply welcoming guests. This is a key differentiating element when compared to hospitality studied in traditional tourism whereby the notion of welcoming is paramount. Hospitable interactions and generosity are key elements highlighted by the authors in their identification of other situations of hospitality. (2) The second similarity pertains to spatial, convivial and hedonistic dimensions. They are all found in the organizational structure of the visit and, thus, in the offer set forth by the company to come and discover its trade. The visit blends discovery, emotion and communication. It reconciles commercial aspects with the host's generosity. This

translates into a better acceptance of prices. Does a better understanding of the cost of products fabricated by the company reveal its transparency and honesty? (3) The third resemblance is discernible in the appropriation of the space, which connects the museum space to the region, marked by the singularity of its heritage and culture. (4) Finally, the temporal dimension procures as many moments of pleasure as a delightful trip through time. However, throughout all of our observations, we did not detect any differences between French and Swiss company hospitality.

This research brings forward theoretical development by introducing a new scope to the concept of hospitality and by demonstrating its “transferability” to the company visit. Let us reveal two other aspects that have not yet been identified: the spiritual dimension and the company’s regional roots, formed by working personnel. To give an example, visitor reactions attest to their gratitude towards the artisan, which they express when they are satisfied with their learning experience (expressed in terms of appropriation: “a heritage we hope to preserve for years to come” or admiration). It is also worthwhile to continue research on expressions of gratitude, motivated by the desire for reciprocity, and on their role in perceived hospitality.

On a managerial level, companies can now use company visits not only as a technique for acknowledging its personnel but also as a tool for business promotion and communication. Communicating a company’s values involves conveying an expertise or craftsmanship and regional traditions. The visit is also a concept. Because it creates social ties between the visitor and the company, contact with personnel is a key element which the company should integrate into its trade discovery offer. Acknowledging the artisan or skilled worker in this way fosters an acceptance of the fabricated products as well as their commercialization. This leads us to suggest that companies should use the visit to develop a kind of educational advertisement of their fabrication costs and sale prices.

Furthermore, in order to foster hospitality, our results reiterate the importance of organizing visits in a manner that goes beyond a standardized “guided” experience. They should be initiated and carried out by the men and women that breathe life into the company and backed by the economic area’s cultural and territorial specificities. In that respect, the company’s history is connected to that of the region (perhaps even to that of a trade specific to the region). Finally, this trade discovery goes beyond simply learning about an expertise or craftsmanship

and actually introduces an *art de vivre* and a mentality. It also strengthens the company’s spiritual identity. Conveying a passion in this manner is not only a prerequisite in creating company hospitality but also a distinguishing element in a company’s service offer for trade discovery.

Of course, the company visit has its risks, especially if it is “nonproductive”. Certain company visits are highly sought-after, because the product is popular (such as chocolate), the brand is well-known and word-of-mouth is spread throughout touring circuits. Victims of their own success and inundated by mass tourism (Cailler welcomes more than 350,000 visitors a year!), certain visits can have unpleasant aspects such as long lines and huge crowds in the company’s buildings. “The Cailler visit is pitiful, whose only objective is to have you spend time in their boutique. Yes, it’s organized, but the standard of this visit was very disappointing to me. We don’t visit the factory; we learn nothing about the fabrication process: just a series of rooms with automatic presentations of questionable quality, which have no value in relation to the industrial processes. Tasting at the end of the “visit” and exited via “direct injection” into the boutique... Not only do we have to pay 10 CHF, but we also wait one hour to learn nothing”. These testimonials prove that the visit should be designed and managed with visitor satisfaction in mind.

Naturally, this exploratory research has a certain number of limits, which present future avenues of study. Firstly, the cross section, although diversified, is limited and does not cover the entire spectrum of company visits available in Alsace and throughout the Jura & Trois-Lacs region of Switzerland. For example, it insufficiently considers diverse company sizes. Secondly, visitor perceptions were constructed based solely on testimonials gathered on the observed company websites, evaluation sites such as TripAdvisor and a handful of blogs. It would be appropriate to widen the study’s scope to include a larger cross section of companies and gather visitor perceptions *in situ* directly after their visit or by telephone.

These are our primary managerial recommendations: allow for easy visit sign-up on-line or by telephone, manage long lines and busy days, personalize the visits as much as possible by integrating working, smiling, expert personnel, put little emphasis on product sales at the end of the visit so as not to devalue the latter with a commercial connotation.

Finally, our study shows that the visit is a precious tool for any company searching for strategies to create ties, humanize their organization and form

cultural alliances all while meeting managerial and commercial demands. Together, these factors add value to the region's economic heritage and hospitable character.

Références

- Bataoui S. et Giannelloni J.-L. (2016), Quand le commerce électronique devient plus humain et moins marchand : une approche par l'hospitalité virtuelle, *Actes du 32ème congrès de l'AFM*, Université Lyon III Jean-Moulin.
- Bianchini A. (2008), Le tourisme industriel est en vogue, *Actualités en France*, 33, Ministère des affaires étrangères et européennes.
- Brotherton B. (2006), Some thoughts on a general theory of hospitality, *The journal of the college of tourism and hotel management, Tourism Today*, 6, Fall, pp. 7-18.
- Brotherton B. (1999), Towards a definitive view of the nature of hospitality and hospitality management, *International Journal of Contemporary Hospitality Management*, 11, 4, pp. 165-173.
- Cinotti Y. (2008), L'hospitalité touristique au service des destinations, *Actes des Rendez-vous Champlain*, Québec.
- Cinotti Y. (2011), *Hospitalité touristique : conceptualisation et études de l'hospitalité des destinations et des maisons d'hôtes*, Université de Perpignan : Thèse de doctorat.
- Coopération (2016), *Deux siècles d'effervescence*, 18 juillet, repris de http://www.cooperation.ch/Deux+siècles+d_effervescence.
- Cottet P., Lichtlé M.-C et Plichon V. (2012), Les éléments constitutifs de l'hospitalité d'une ville : le point de vue des touristes, *Actes du 28ème Congrès International de l'Association Française du Marketing*, Brest.
- Cottet P., Lichtlé M.-C, Plichon V. et Ferrandi J.-M. (2015), Image d'hospitalité des villes touristiques : le rôle de la communication, *Recherches en sciences de gestion*, 108 (3), pp. 47-66.
- Courvoisier F. (2014), Le musée d'entreprise horlogère : entre patrimoine et communication, *Revue historique vaudoise*, 122, pp. 195-220.
- Courvoisier F. et Aguilhaume C. (2010), Les Montagnes neuchâteloises, région créative en action, *Espaces, tourisme et loisirs*, 283, pp. 33-40.
- Cousserand I. (2009), Musées d'entreprise, un genre composite, *Communication et organisation*, 35, pp. 192-213.
- Cova V. (2010), L'hospitalité des lieux de service, *Actes des 15èmes Journées de Recherche en Marketing de Bourgogne*, Université de Bourgogne, Dijon.
- Cova V. et Giannelloni J.-L. (2008), Hospitalité et consommation touristique, *Actes des 13èmes Journées de Recherche en Marketing de Bourgogne*, Université de Bourgogne, Dijon.
- Cova V. et Giannelloni J.-L. (2015), Hospitalité et consommation touristique, *Revista Hospitalidade*, 2, pp. 517-546.
- Filser M. (2002), Le marketing de la production d'expérience : statut théorique et implications managériales, *Décisions Marketing*, 28, pp. 13-22.
- Gotman A. (2004), *Villes et hospitalité. Les municipalités et leurs « étrangers »*, Paris : Éditions de la Maison des Sciences de l'Homme.
- Hemmington N. (2007), From service to experience: understanding and defining the hospitality business, *The Service Industries Journal*, 27(6), pp. 747-755.
- Heal F. (1990), *Hospitality in early modern England*, Oxford (GB): Clarendon Press.
- Hollenbeck C.R., Peters C. et Zinkhan G.M. (2008), Retail Spectacles and Brand Meaning : Insights from a Brand Museum Case Study, *Journal of Retailing*, 84 (3), pp. 334-353.
- Jaberg S. (2009), La bière artisanale du Jura séduit l'Amérique, *Swissinfo.ch*, 21 octobre (repris de <http://www.swissinfo.ch/fre/economie/la-bière-artisanale-du-jura-séduit-l-amérique/7516508>).
- Joy A et Sherry J. Jr (2003), Speaking of art as embodied imagination: A multi-sensory approach to understanding aesthetic experience, *Journal of Consumer Research*, 30 (3), pp. 259-282.
- Ksouri S., Marcon A. et Preuilh P. (2000), Tourisme de découverte économique et visites d'entreprises, *Paris : La Documentation française*, pp. 10-16.
- Lugosi P. (2008), Hospitality Spaces, Hospitable Moments: Consumer Encounters and Affective Experiences in Commercial Settings, *Journal of Food-service*, 19(2), pp. 139-149.
- Meyssonat-Courtois P. (1994), Les musées d'entreprise en France : une réalité à dépasser, un concept à inventer, *La Lettre de l'OCIM*, 34, pp. 13-17.

Montandon A. (2004), *Le livre de l'hospitalité, accueil de l'étranger dans l'histoire et les cultures*, Paris : Bayard.

Morice J.-R. (2006), La visite d'entreprise en Europe, un champ à explorer, *Espaces, tourisme et loisirs*, 92, pp. 10-15.

Pierre C. (2005), Du tourisme industriel à la visite d'entreprise, *La Lettre de l'OCIM*, 101, pp. 18-25.

Pulh M., Mencarelli R. et Chaney D. (2015), Enrichir la compréhension des musées de marque : une perspective patrimoniale, *Actes du 31^{ème} congrès de l'AFM*, Marrakech.

Reuland R., Choudry J. et Fagel A. (1985), Research in the field of hospitality, *International Journal of Hospitality Management*, 4 (4), pp. 141-146.

Ricoeur P. (1998), Étranger, moi-même, in *Semaines Sociales - L'immigration, défis et richesses*, Paris : Bayard Éditions, pp. 93-106.

Rivard R. (2006), Construire une expérience de visite. Ressentir, apprendre, s'interroger, *Espaces, tourisme et loisirs*, 92, pp. 114-116.

Roederer C. (2012), *Marketing et consommation expérientiels*, Cormelles-le-Royal : Editions EMS.

Roederer C. et Filser M. (2015), *Le marketing expérientiel. Vers un marketing de la cocréation*, Paris : Vuibert.

Seydoux, José, (1983), *De l'hospitalité à l'accueil*, Denges-Lausanne : Editions Delta et Spes.

Spielmann N., Laroche M. et Borges A. (2011), How service season the experience: Measuring hospitality servicescapes, *International Journal of Hospitality Management*, Article in press.

Williams A. (2006), Tourism and hospitality marketing: fantasy, feeling and fun, *International Journal of Contemporary Hospitality Management*, 18, 6/7, pp. 482-495.

Purchase intention of Peruvian agricultural product Intención de compra de producto agrícola del Perú

Abstract

The purpose of this study is to analyze the association of the variables country image of Peru, lucuma's product image, familiarity with Peru, and lucuma's product familiarity with the purchase intention of Peruvian lucuma because these associations haven't been analyzed for the variable country familiarity, and for the lucuma product. As methodology, a descriptive and confirmatory research was carried out in which a structured questionnaire was used in two selected samples that correspond to consumers from two countries with different levels of familiarity with Peru. First, United States which has high familiarity with Peru, and secondly, France, whose familiarity with Peru is low. The key finding indicated that the country image of Peru and lucuma's product image are directly related; in addition, the intention to purchase Peruvian lucuma is positively related with the country image of Peru, lucuma product image, familiarity with Peru, and lucuma's product familiarity in both samples. Finally, it's concluded that the intention to purchase Peruvian lucuma is influenced significantly by lucuma's product image in both samples, when all of them all analyzed together.

Key words: Intention to purchase, lucuma, product image, country image.

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Introduction and objectives

According to Fishbein and Ajzen (1975) the intention to purchase is a process through which the consumer has the intention of buying a product in the near future; that is, a subjective inclination towards a product. But purchase intention is usually referred to the behavior, perceptions and attitudes of consumers (Mirabi, Akbariyeh, & Tahmasebifard, 2015).

In these times consumers are surrounded by a large amount of information and various forms of promotion to motivate their purchase of various products, which makes the purchase decision increasingly complex (Madahi & Sukati, 2012).

Particularly, Keller (2001) emphasized that although the consumer intention to purchase could be affected by many uncontrollable factors by the companies, the final decision to purchase a product or service will depend on the consumer intention to purchase; therefore, it is necessary to study it.

On the other hand; lucuma is an input of luxury in the confectionery, pastry, ice cream, and delicacies industries; due to its intense and unique flavor; as well as its creamy texture (Lazaeta, 2006; Morán, 2016).

In this context, the general objective of the present research is to analyze the association of the intention to purchase of lucuma from Peru with the country image of Peru, the image of the lucuma product, the country familiarity of Peru and the lucuma from Peru product familiarity. In addition, the specific objectives are: (1) Analyze the association of the country image of Peru with the lucuma product image of Peru. (2) Analyze the association of the country image of Peru with the intention to purchase lucuma. (3) Analyze the association of the lucuma product image with the intention to purchase lucuma. (4) Analyze the association of Peru country familiarity with the intention to purchase lucuma. (5) Analyze the association of lucuma product familiarity the intention to purchase lucuma. (6) Analyze the effect of the country image of Peru, the lucuma product image, familiarity with Peru, and lucuma product familiarity with the intention to purchase lucuma.

Research question

What is the relationship between the intention to purchase of lucuma and the country image of Peru, the lucuma product image, the Peru country familiarity, and the lucuma product familiarity?

Review of the literature

The main models that studied the relationship between the country image and product image, as well as, the relationship between the country image, product image, country familiarity and product familiarity with the intention to purchase through time are.

Han (1989) proposed a model that researched the variables that affect consumers' buying intent, and identified the country image variable, and product familiarity as main variables. Later, Han (1990) developed a new model that researched the consumer's perception on the quality of the product through the appreciation of the product country origin called Halo effect. Similarly, he studied how it impacts on the intention to purchase.

Particularly, Hong and Wyer (1989) studied the country of origin effect which showed that consumers were interested in knowing more information about other characteristics of the product and its impact on the purchase intention. In consequence, they found that the information of the product country origin influences the consumer's purchase intention. A similar perspective was researched by Roth and Romeo (1992) who studied the association of the country image and product image, with the consumer purchase intention. They concluded that the country image is positively associated with the consumer intention to purchase.

Subsequently, Papadopoulos and Heslop (2000) made a multi-country analysis adapting Roth and Romero's model (1992). They found that country image is associated positively with the intention to purchase. Likewise, Lin and Kao (2004) adapted Roth and Romeo's model (1992) and found that the country of origin impacts directly on the consumer's purchase intention.

Two years later, Long Yi and Chun-Shuo (2006) researched the impact of country image, product image, and the level of linkage and knowledge of the product on the consumer's intention to purchase. They concluded that knowledge and linking of the product regulates the final effect of the country of origin variable on the consumer's intention to purchase. Similarly, Wang and Yang (2008) studied the effect of the country image and the brand personality on the consumer's purchase intention. They concluded that the brand personality and country image have a direct impact on the consumer's purchase intention.

Khan, Ghauri and Majeed (2012) developed a model that studied the impact of brand knowledge, brand relationship, behavioral intention, country of origin and past experiences on the purchase intention. They concluded that brand loyalty and brand knowledge have the highest positive relationship with purchase intention.

Parallel, Xianguo, Jing, Xia and Da (2012) researched the impact of the country of origin image, the animosity, and the consumer's ethnocentrism, on the consumer intention to purchase of domestic and foreign products. Their main conclusion is that consumer ethnocentrism positively impacts on the intention to purchase of local products; but country of origin and the animosity does not significantly impact on the intention to purchase of domestic products.

Guina and Giraldi (2012) analyzed the effect of country image and country familiarity of a product on the consumer's purchase intention. They determined that both country image and country familiarity influence the consumer's intention to purchase. Particularly, Sinrungtam (2013) studied the impact of the dimensions of country of origin on the purchase intention. He concluded that country of manufacture, country of the parts, country of the brand and country of the company dimensions have a direct impact on the consumer intention to purchase. In contrast, country of assembly and country of design dimensions does not impact on the intention to purchase.

On the other hand, Ortiz (2014) analyzed the relationship between the country of origin image and the brand personality of a product; and its influence on the consumer's intention to purchase. He concluded that the country of origin image has a direct effect on the brand personality; and in turn, this relationship has a positive impact on the consumer's intention to purchase.

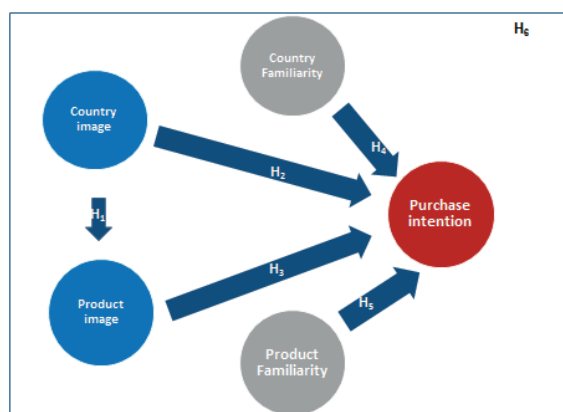
In 2016, Liu and Guo (2016) researched the impact of the access, satisfaction, reputation and familiarity of the product on the intention to purchase. Their results indicate that both the familiarity of the product, as well as, the access do not directly influence the consumer's intention to purchase.

According to the literature review, one of the main conclusions is the gap regarding the research on the consumer's intention to purchase of agricultural products from developing countries. In addition, it was found that the country familiarity and product familiarity variables, which are relevant for the

research of the consumer's intention to purchase, have been little studied in the researchers that studied the intention to purchase. Therefore, the hypotheses propounded are presented (see graph 1):

- H₁: The better the Country image of Peru, the greater the lucuma product image will be.*
- H₂: The better the image of the country of Peru, the greater the intention to purchase of the lucuma from Peru will be.*
- H₃: The better the lucuma product image, the greater the intention to purchase the lucuma from Peru will be.*
- H₄: The better the familiarity with Peru country, the greater the intention to purchase of the lucuma from Peru will be.*
- H₅: The better the familiarity with the lucuma product of Peru, the greater the intention to purchase lucuma from Peru will be.*
- H₆: The Country image of Peru, the lucuma product image, the Peru country familiarity and the lucuma from Peru product familiarity, have a significant effect on the intention to purchase the lucuma from Peru*

Graph 1: Diagram of the hypotheses proposed



Source: Own elaboration based on the Roth and Romeo model (1992).

Method

A confirmatory and descriptive research was carried out to determine the type of relationship between the studied variables (Kumar, 2000). A structured questionnaire organized into five sections was adapted by Roth and Romeo (1992) to collect the primary information. On the other hand, two samples were selected with different levels of familiarity with Peru, for the collec-

tion of information. The first sample was made up of people from the United States whose familiarity with the Peru is high. The second sample was made up of people from France whose familiarity with Peru is low; for this selection, the study made by Verbeke and Vackier (2004) was taken as a basis. Douglas and Craig (2007) recommend using non-probabilistic sampling for convenience, given the cost and time constraints; as well as the difficulty of access to the samples studied. Therefore, non-probabilistic sampling was used to survey undergraduate and graduate students from the United States and France. Given the nature of the sampling, the results of the research should not be extrapolated to the universe. On the other hand, to determine the components of the country image of Peru and lucuma product image, the items of the country image and product image presented in the review of the literature were analyzed, and items (prestige, design, innovation and manpower) used by Roth and Romeo (1992) were adopted. See table 1.

Table 1: Technical Sheet of the study carried out

	France	United States
Universe	People older than 18 years with higher education, residing in France	Persons over 18 years of age with higher education, residing in the United States
Sampling method	Non-probabilistic; by convenience.	
Sample size	109 surveys	109 surveys
Technique to survey	Self-administered questionnaire	

Source: Own elaboration

To measure the different response categories of respondents to the items studied, the interval method was carried out, and the semantic differential scale was applied as a measurement scale. This scale was based on categories of responses ordered on a scale of seven points that represented the degree of acceptance, preference or agreement with each of the items analyzed. This scale is characterized by its simplicity of results in marketing (Kineear & Taylor, 1999).

Findings

The hypotheses raised through the study of the correlation by pairs of the variables researched were analyzed. A bivariate analysis was carried out to verify each one of the hypotheses.

Analysis of hypothesis 1 (H₁)

In the French sample, there is a positive but not significant correlation ($r = 0.082$, $p = 0.398$) between the country image of Peru and the lucuma product image. See table 2. This implies that the country image of Peru is correlated directly with the lucuma product image. However, such a correlation is not statistically significant. On the other hand, in the USA sample, there is a positive and significant correlation ($r = + 0.461$; $p = 0.000$) between the country image of Peru and the lucuma product image. See table 2.

Table 2: Summary of H₁

Pairs: (1) Country image of Peru Lucuma's product image	(2)	France	USA	France	USA
		Correlation		P value	
		0.082	* 0.461	0.398	** 0.000

Source: Own elaboration. Legend: * Highest correlation. ** Significant correlation at 5%.

Analysis of hypothesis 2 (H₂)

In the French sample there is a positive but not significant correlation ($r = + 0.074$, $p = 0.446$) between the country image of Peru and the intention to purchase of lucuma. Therefore, the country image of Peru is directly correlated with the intention to purchase lucuma from Peru. However, such a correlation is not statistically significant. In contrast, in the USA sample, there is a positive and significant correlation ($r = + 0.355$, $p = 0.000$) among the studied variables. See table 3.

Table 3: Summary of H₂

Pairs: (1) Country image of Peru. (2) Intention to purchase of lucuma.	France	USA	France	USA
	Correlation		P value	
	0,503	*0,523	** 0,000	** 0,000

Source: Own elaboration. Legend: * Highest correlation. ** Significant correlation at 5%.

Analysis of hypothesis 3 (H₃)

In the French sample there is a positive but not significant correlation ($r=+0,503$; $p=0,000$) between the lucuma product image and the intention to purchase of lucuma. Therefore, lucuma product image is directly correlated with the intention to purchase of lucuma. However, such a correlation is not statistically significant. In contrast, in the USA sample, there is a positive and significant correlation ($r=+0,523$; $p=0,000$) among the studied variables, see table 4.

Table 4: Summary of H₃

Pairs: (1) Lucuma's product image. (2) Intention to purchase of lucuma.	France	USA	France	USA
	Correlation		P value	
	0,503	*0,523	** 0,000	** 0,000

Source: Own elaboration. Legend: * Highest correlation. ** Significant correlation at 5%

Analysis of hypothesis 4 (H₄)

In the sample from France there is a positive but not significant correlation ($r = + 0.140$, $p = 0.417$) between the country familiarity with Peru and the intention to purchase of lucuma. This implies that the country familiarity is correlated directly with the intention to purchase of lucuma. However, such a correlation is not statistically significant. On the other hand, in the USA sample, there is a positive and significant correlation ($r = + 0.415$, $p = 0.000$) between the country familiarity with Peru and the intention to purchase of lucuma. See table 5. Empirical discovery represents a scientific contribution to the literature, given that there are no models that study this association.

Table 5: Summary of the H₄

Pairs: (1) Country familiarity with Peru. (2) Intention to purchase of lucuma.	France	USA	France	USA
	Correlation		P value	
	0,140	*0,415	0,147	**0,000

Source: Own elaboration. Legend: * Highest correlation. ** Significant correlation at 5%.

Analysis of hypothesis 5 (H₅)

In the French sample, there is a positive but not significant correlation ($r=+0,345$; $p=0,000$) between the lucuma product familiarity and the intention to purchase of lucuma. This implies that the lucuma product familiarity is correlated directly with the lucuma product image. However, such a correlation is not statistically significant. On the other hand, in the USA sample, there is a positive and significant correlation ($r=+0,576$; $p=0,000$) between the studied variables. See table 6.

Table 6: Summary of H₅

Pairs: (1) Lucuma product familiarity. (2) Intention to purchase of lucuma.	France		USA	
	Correlation		P value	
	*0,345	*0,576	**0,000	**0,000

Analysis of hypothesis 6 (H₆)

When the four variables are analyzed together to explain the intention to purchase of lucuma, these variables are positively related to it, for both samples. Particularly, the lucuma product image is the only statistically significant explaining the intention to purchase; in both samples. Therefore, the country image of Peru, country familiarity with Peru, and lucuma product familiarity does not impact on the intention to purchase, for all samples. See table 7.

Table 7: Summary of H₆

Country image of Peru		Lucuma product image		Country familiarity with Peru.		Lucuma product familiarity.	
France	USA.	France	USA.	France	USA.	France	USA.
0,727	0,317	*0,000	*0,011	0,898	0,920	0,267	*0,000

Source: Own elaboration: * Highest correlation. ** Significant correlation at 5%.

Discussion and Conclusions

Regarding H₁, it is accepted in cases in which the consumer has high familiarity with Peru, and it's rejected when the consumer has low familiarity with Peru. Therefore, there is a partial acceptance of H₁, since this occurs only when there is high familiarity with Peru. Likewise, with respect to H₂, it must be accepted in the case that the consumer of foreign products has a high familiarity with Peru; in contrast, with consumers who have low familiarity with Peru. Therefore, there is partial acceptance of H₂. Relative to H₃; it's accepted in cases in which the consumer has high and low familiarity with Peru, this implies a very broad acceptance of H₃. Regarding H₄, there is a partial acceptance; since it's accepted, only, when the consumer has high familiarity with Peru. This represents a scientific contribution for the academy, since the country's familiarity has not been associated by the literature with the intention to purchase. Respect of H₅, it is accepted in the cases of consumers of foreign products has high and low familiarity with Peru. Therefore, H₅ is widely accepted. Finally, with respect to H₆, it is possible to conclude that the intention to purchase of lucuma is influenced by the lucuma product image, in the case of foreign consumers with high and low familiarity with Peru. Therefore, H₆ is partially accepted.

Limitations

The reliability of the results of the research is low given the size of the samples studied that limits the preparation of a study based on gender, age and socioeconomic level; as well as, the limitations of time and money. Also, the conclusions are not generalizable to the universe given that the sampling method used was non-random. Further; the sample was not representative of the universe. It was researched with postgraduate students who tend to greater international interaction, openness and cultural knowledge. On the other hand, structural equations were not used for the analysis of the model given that only two of the variables researched were constructs (country image and product image) conformed by four dimensions. In turn, the other three variables (country familiarity, product familiarity and intention to purchase) were one-dimensional.

Further Research

It is necessary to design a model that includes constructs conformed by several dimensions in such a way that structural equations can be used to validate the model. Likewise, a random and probabilistic study with sample sizes representative of the universe is necessary so that the results can be extrapolated and an research

can be carried out by gender, age and consumer socio-economic level. In addition, it is necessary to carry out a study of the impact of the sociodemographic variables of the consumer based on the variables age, gender, and socio-economic level. Finally, it is suggested that for future research, the multidimensional country image construct be studied, as pointed out by some authors such as Martin and Eroglu (1993), Lala, Allred and Chakraborty (2009).

Managerial implications

One of the main managerial implications is that Peruvian lucuma exporters may experience greater intention to purchase of their product by the consumers when the importing country is familiar with Peru. Likewise, promoting the lucuma from Peru using the country image of Peru could generate greater intention to purchase by international consumers who have a high familiarity with Peru. In the same way, to use the lucuma product image in the commercial export strategies would positively affect the intention to purchase by international consumers with high and low familiarity with Peru. Further; those consumers who are already familiar with the lucuma from Peru are more educated in buying Peruvian lucuma. Finally, promoting this fruit using the lucuma product image could be the best way to achieve greater purchase incidence of this product by consumers with high and low familiarity with Peru; among the other variables analyzed together.

REFERENCES

- Agarwal, S., & Sikri, S. (1996). Country image: Consumer evaluation of product category extensions. *International Marketing Review* 13(4), 23-39.
- Allred, A., Chakraborty, G., & Lala, V. (2009). A Multidimensional Scale for Measuring Country Image. *Journal of International Consumer Marketing* 21, 51-66.
- Dawei Liu, X. G. (2016). Can trust and social benefit really help? Empirical examination of purchase intentions for wearable devices. *Information Development*, 33(1), 43 - 56.
- Douglas, S., & Craig, S. (2007). Use of product-country image cues in magazine advertising. A content Analysis. *Carleton University. Dissertations Publishing*.
- DRAE. (03 de 06 de 2017). Recuperado el 06 de 03 de 2017, de <http://dle.rae.es/srv/fetch?id=NfgFAU6>
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research. *Reading, MA: Addison-Wesley*.
- Guina, F., & Giraldi, J. (2012). GCG: Revista de Globalización, Competitividad y Gobernabilidad. 6(2), 81-94.
- Han, C. (1989). Country Image: Halo or Summary Construct? *Journal of Marketing Research*, 26, 222-229.
- Han, C. (1990). Testing the role of country image in consumer choice behaviour. *European Journal of Marketing*, 24(6), 24-40.
- Hong, T., & Wyer, R. (1989). Effects of country-of-origin and product-attribute information on product evaluation: an information processing perspective. *Journal of Consumer Research*, 16(2), 75-87.
- Huy, H., & Svein, O. (2012). Certainty, risk and knowledge in the satisfaction-purchase intention relationship in a new product experiment. *Asia Pacific Journal of Marketing and Logistic*, 4(1), 78-101.
- Keller, K. (2001). Building customer-based brand equity: creating brand resonance requires carefully sequenced brand-building efforts. *Marketing Management*, 10(2), 15-19.
- Khan, I., Ghauri, T., & Majeed, S. (2012). Impact of Brand related attributes on purchase intention of consumers. *Journal of Contemporary Research in Business*, 4(3), 194-200.
- Kineear, T., & Taylor, J. (1999). *Investigación de mercados: un enfoque aplicado*. Santafé de Bogotá: McGraw-Hill.
- Kumar, N. (2000). Essays on the information role of firms' strategies. *The University of Chicago, UMI Dissertations Publishing*.
- Lazaeta, R. (2006). Manual de Alimentación Sana. En R. Lazaeta. México Distrito Federal: Pax Mexico.
- Lillis, C. (1974). Analysis of Made In Product Images An Exploratory Study. *Journal of international Business*, 119-127.

- Lin, C.-H., & Kao, D. T. (2004). "The Impacts of Country-of-Origin on Brand Equity". . *Journal of American Academy of Business, Cambridge*, 5 (1/2): 37, 37.
- Lin, L.Y., & Chun Shuo, C. (2006). The influence of the country of origin image, product knowledge and product involvement on consumer purchase decisions: an empirical study of insurance and catering services in Taiwan. *Journal of Consumer Marketing, Vol. 23 Iss: 5*, 248-265.
- Madahi, A., & Sukati, I. (2012). The Effect of External Factors on Purchase Intention amongst Young Generation in Malaysia. *International Business Research, Vol. 5, No. 8*, 153 - 159.
- Martin, I., & Eroglu, S. (1993). Measuring a multi-dimensional construct: country image. *Journal of Business Research, Vol 28. No.3*, 191-210.
- Mirabi, V., Akbariyeh, H., & Tahmasebifard, H. (January de 2015). A Study of Factors Affecting on Customers Purchase Intention Case Study: the Agencies of Bono Brand Tile in Tehran. *Journal of Multidisciplinary Engineering Science and Technology (JMEST), Vol. 2 Issue 1*, 267 - 273.
- Morán, I. (31 de 05 de 2016). *20 minutos*. Obtenido de <http://blogs.20minutos.es/la-gulataca/2016/05/31/frutas-exoticas-peru/>
- Nagashima, A. (1970). A Comparison of Japanese and U.S. Attitudes Toward Foreign Products. *Journal of Marketing* 34, 68-74.
- Narayana, C. (1981). Aggregate Images of American and Japanese Products: Implications on International Marketing. *Columbia Journal of World Business*, 16, 31-53.
- Ortiz, R. (01 de 2014). El efecto de la imagen del país de origen y la personalidad de marca en la intención de compra: Un estudio transcultural. Gurabo, Puerto Rico: Pro-Quest.
- Papadopoulos, N., & Heslop, L. (2000). *A Cross-national and Longitudinal Study of Product-country Images with a Focus on the U.S. and Japan*. Massachusetts: Marketing Science Institute .
- Roth, M., & Romeo, J. (1992). Matching Product Category and Country Image Perceptions: A Framework for Managing Country-of-origin Effects. *Journal of International Business Studies*, 23(3), 477-497.
- Sanyal, S. N., & Datta, S. K. (2011). The effect of perceived quality on brand equity: an empirical study on generic drugs", . *Asia Pacific Journal of Marketing and Logistics, Vol. 23 Iss: 5, pp.*, 604 - 625.
- Sinrungtam, W. (2013). Impact of Country of Origin Dimensions on Purchase Intention of Eco Car. *International Journal of Business and Management*, 8(11).
- Verbeke, W., & Vackier, I. (2004). Profile and effects of consumer involvement in fresh meat. *Meat science*, 67, 159-168.
- Wang, X., & Yang, Z. (2008). Does country of origin matter in the relationship between brand personality and purchase intention in emerging economies? *International Marketing Review*, 25(4), 458-474.
- Xianguo, L., Yang, J., & Wang, D. (2012). The impact of country-of-origin image, consumer ethnocentrism, and animosity on purchase intention. *Journal of software*, 7(10).

Why Do We Act Like Peter Pan When It Comes to Decisions About Aging In Place?

Abstract

Seniors are placing ever-increasing demands on public and private support systems. As they age most seniors desire to age in place. Yet one of the most complex and difficult decisions an individual must make as they age is the choice of whether to stay or go as their home becomes less suitable for aging in place.

Research shows that, as we age, our concept of home is central to our self-concept while other research shows that this very home is most likely to be designed and built in such a fashion as to make staying almost impossible, given the aging process and the increasing likelihood of illness. Aging consumers often approach their future with a Peter Pan-like mantra, a future where one does not grow old or become ill and where one's home will allow the individual to successfully age in place.

Two concepts, taken together, help explain why consumers avoid planning and preparing for their aging future. One part of the answer lies in our self-concept and how we behave based on our perceived age rather than our actual age. The second concept is that, as we age, we continue to make decisions that align our self-image (that of being younger) with our actions in order to be self-congruent. This growing gap between our chronological age and our perceived age can result in a denial of the potential negative impacts that the aging process creates, making the very homes we live in our greatest challenge to effectively age in place.

This paper concludes that this gap has resulted in such a strong denial of the impacts of aging and magical thinking with the result that many consumers will be ill-prepared for their real future and will find it almost impossible to age in place. By better understanding this denial of the consequences of aging on the decision of where and how to live, we can better deduce communication and marketing strategies to close the gap between hopes and wishes and the reality of growing old and wanting to age in place.

Key words: aging in place, self-congruity, perceived age, decision - making, consumer behaviour

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Introduction

This paper explores the decision-making process used by seniors when considering choices about where they will live as they age and why possible aging in place solutions are often ignored. Marketers need to understand how individuals are approaching these complex housing decisions and why there appears to be an avoidance of practical design solutions that could make aging in place actually happen.

Many countries are experiencing the impacts of two aging phenomena: firstly, seniors are living longer and secondly, that the health needs of these aging populations are having a growing impact on many countries ability to support these populations. WHO explores these changes in demography and documents the many forces at play in the aging process around the world (WHO, 2015). Put simply, the report illustrates how most of the developed world and much of the rest of the world, except sub-Saharan Africa, is experiencing the impact of more seniors as a result of the aging of their population. While Japan leads the world (Muramatsu, 2011) as the nation with the oldest population, Canadians are aging quickly. Of the G7 countries, the United States (15%) and Canada (16.1%) have the lowest proportions of persons aged 65 years and older. Conversely, Japan's population has the highest proportion of persons aged 65 years and older (26%) among the G7 countries (Statistics Canada, 2015).

As we age, we make choices about where and how we will live. We want to stay in our homes for as long as possible. The reasons behind this desire to age in place include: fear of the unknown and fear of change, comfort with what is known, wanting to be in control of our lives and a desire not to be a burden to others. The numbers of seniors reporting that this is what they want is over 90% in many studies in both Canada and the United States (Farber, 2011) (Shiner, 2007).

Home constitutes, for almost all of us, the simple rituals that link us with sequences of the day and patterns of time. These are the rituals that surround the gathering of food, cooking, washing, eating, sleeping and cleaning, and connect us to almost all of humanity.

We do very little, however, to celebrate or pay tribute to those rituals that centre on and link us to that diverse but collective experience of "home". The meaning of home, of a protected refuge, is

very often connected with comfort, relationships, family, relatives, friends and those traditional rituals that give meaning to our lives. This is borne out by the trauma people experience after a break-in or the loss of home through a natural disaster or a relationship split. Perhaps the most difficult situation comes when an elderly person or couple is forced to move out of their home because they can no longer manage their physical surroundings.

People can experience both positive and negative feelings about their home at the same time. For example, a place may be important psychologically because it has connections with the past, but it may offer a poor physical environment that no longer meets a person's physical needs. This is a common experience for many older Canadians (Shiner, 2010).

All change demands some personal or psychological adjustment, some more stressful than others. Research has shown that fears of a major change of environment and living circumstances were viewed a major obstacle to moving (Antonucci, 1991) (Lin, 2005) (Shiner, 2007).

How people cope with adjustment is at the heart of change. In terms of changing homes, this can often relate to the individual's attachment to where they have come from and to the impact that moving may have on their self-identity in relation to issues of belonging, permanence, and security. Overwhelmingly, our elders want to continue to live as long as possible in their current homes. If they must move, they want to stay in the communities where they have a network of friends and neighbours so that these connections are not lost.

So why does this not happen? Why do many aging Canadians fear that they will not be able to live out the last years of their time in the homes and communities they love? The reasons are many and intertwined. We know that our housing stock is older and not designed for accessibility for any age, particularly when walkers and wheelchairs become part of the equation. We know that the options to move to more suitable living space within most rural communities just do not exist. We know that as our population ages there are challenges with providing appropriate care in the home, in particular in the many small rural communities that make up much of Canada (Keefe, 2011). We know that if we made homes more accessible people would be able to live in them longer yet we insist on continuing to act like Peter Pan, building homes designed for people who will never grow old or become ill.

Where and how we live is a reflection of where we are in our life-course. For example, Litwak and Longino draw on a family cycle/life-course framework in their approach to exploring moving after age 60 (Litwak, 1987). They describe three distinct types of moves during later life: a primary retirement move for amenities, a move to adapt to moderate disability levels and a move in the face of major, chronic disability that usually results in institutionalization. Each type of move is affected differently by retirement lifestyle, family ties, and health. In Canada there are, on-average, four moves after the age of 65 (Shiner, 2010)

Some life events affect the individual's housing situation immediately, for example, marriage or cohabiting. Other life events have a lagged effect such as job loss, leading to a move to less expensive housing after the household has run out of savings (Kendig, 1990) (Dykstra, 1999). Some effects may last over time, while others may disappear. Moreover, a long-term perspective on the housing situation acknowledges the importance of the accumulation of experiences up to a certain moment to explain the situation at that time. As Dykstra & Van Wissen (1999) state: "people's biographical past affects their present circumstances, and present circumstances shape future life directions" (p. 8). Mayer uses the term 'cumulative contingencies' to stress the cumulative way in which the occurrence and timing of events in different domains of life result in restrictions and opportunities at a particular age (Mayer, 1986).

As we age, the choice of living arrangement is affected by the interplay of a number of household characteristics and not just the age of the people. For example, one would expect frailty, the level of ability of the elderly to perform daily living activities, to be an important factor in their selection of living arrangement. The reasons for wanting to stay where we are as we age have variously been identified as:

- Familiarity, comfort, and meaning associated with home (Rowles, 1987) (Rubinstein, 1989) (Herzog, 1991).
- Feelings of independence and control (Wagnild, 2001).
- Economics (Cutler, 1991) (Mutschler, 1992).
- Benefits associated with remaining in a familiar neighborhood and community (Antonucci, 1991).

Together these factors result in an aging population that becomes less accepting of the possibility of having to move as they age while at the same time

the actual probability of that very event happening increases with every passing year. The one traumatic situation that runs counter to this need is a move motivated by the death of a spouse. Interestingly, the chances of moving have proven to be reduced, rather than raised, for this situation (Lin, 2005).

Betty Friedan argued that the choice of where to live as we aged was perhaps the most difficult challenge of the aging process. She said "whether to move to a new place, or simply to stay where we are, that is the deceptive, impossible metaphor of choice we put to ourselves facing age" (p337). (Friedan, 1993).

As we age we become more attached to our homes and our community. In Atlantic Canada, 91.7% of respondents to a *Seniors Housing and Support Services Survey* indicated that such was the case with their housing situation (Shiner, 2007). A number of other studies have asked seniors about their future plans to move. In the USA the American Association of Retired Persons (AARP) has consistently reported that 9 of 10 seniors want to stay where they are (American Association of Retired Persons, 2000). Atlantic Canadian respondents resoundingly gave the same message with 88% saying they have no plans to move from their current dwelling. As with many actions over an individual's life-course there is an obvious discrepancy between what we think we will do and what we actually do.

Atlantic Canadian seniors have been in their communities for a large part of their lives, with 53.4% still living in the same community they lived in thirty-five years ago. Not only are seniors staying in their communities, they are also staying in the same home for long periods of time. The average length of time they have lived in their current home was just over 25 years. Many (15.9%) have lived in their homes for over 45 years (Shiner, 2007).

Lin reports that seniors were less likely than those in the general population to move over a three-year period (Lin, 2005). This is not surprising given the average length of time seniors stay in the same home. Only 10.6% of Atlantic Canadian seniors said that they had moved in the past three years, and only 12.6% stated they have plans to move at any time in the future. Even those seniors, who said that they planned to move, do not plan to do move in the near future - rather 62.3% said any move would be six to ten years away (Shiner, 2007).

There are many reasons that motivate people to move. The top five reasons given by seniors in the Atlantic Canadian survey who stated that they do

plan to move included:

- Downsizing to a smaller home (50%)
- Accessing better, or more suitable housing (41%)
- Having difficulty maintaining the home or garden (39%)
- Experiencing a decline in personal health (36%)
- To be closer to family and friends (25%) (Shiner, 2007).

For those who had intentions to move, staying close to family and friends, finding more suitable housing, and access to health care services were the most important factors when selecting the location. (Shiner, 2010)

The Challenges of Aging in Place

Most Canadians live in homes designed to be efficient and comfortable but many live in housing that is less than this. For those aged sixty-five and older, 28.2% live in housing that is defined by Canada Mortgage and Housing as being below standard and a further 14.4% live in an even worse condition described as core housing need ¹ (Canada Mortgage and Housing, 2010).

Most important to successful aging in place is the design of the home and the interaction between the individual and this space. In their ecological model of aging, Lawton and Nahemow describe this interaction of a person and their environment (Lawton, 1973). They argue that problems occur once the demands of your environment (your home) exceed the individual's capabilities. This can include things like narrow hallways and steep stairs, lack of a level entrance, or having no bathroom access on the ground floor. These physical challenges increase in importance as the natural processes of aging diminish the individual's physical abilities to interact with their living environment.

Atlantic Canadian respondents indicated that they have made some modifications to their homes in order to facilitate aging in place. Some of the

¹ *A household is said to be in core housing need if its housing falls below at least one of the adequacy, affordability or suitability, standards and it would have to spend 30% or more of its total before-tax income to pay the median rent of alternative local housing that is acceptable (meets all three housing standards) (Canada Mortgage and Housing Corporation, 2014).*

modifications made include:

- Installing grab bars in the bathroom (66%)
- Adding handrails to staircases (37%)
- Modifying a bathtub or installing a shower (31%) (Shiner, 2007).

Other studies have identified similar home modification priorities. For a summary of the 10-most commonly prioritized modifications and repairs, see Table 1 (Szanton, 2015).

Many countries have tackled the issues surrounding home design and the ability of any individual to continue to live in that home despite some physical disability. These approaches all start with the principles of universal design and then become specific programs with identifiers such as universal access, visitability or life-time homes.

One example, The British Lifetime Homes Standard, was established in the mid-1990s to incorporate a set of principles that should be implicit in good housing design (Department for Communities and Local Government, 2008) . Good design, in this context, was considered to be design that maximizes utility, independence, and quality of life, while not compromising other design issues such as aesthetics or cost effectiveness.

The Lifetime Homes Standard seeks to enable general needs and requires housing to provide, either from the outset or through simple and cost-effective adaptation, design solutions that meet the existing and changing needs of diverse households. This offers the occupants more choice over where they live and which visitors they can accommodate for any given time period. It is therefore an expression of inclusive design.

Housing that is designed to the Lifetime Homes Standard will be convenient for most occupants, including some (but not all) wheelchair users and most disabled visitors, without the necessity for substantial alterations. A Lifetime Home will meet the requirements of a wide range of households, including families with walkers. The additional functionality and accessibility it provides is also helpful to everyone in ordinary daily life, for example, when carrying large and bulky items into the home.

There have been a number of studies into the costs and benefits of building to the Lifetime Homes Standards. These have concluded that the additional construction costs range from \$888 (Cdn) to \$2632 (Cdn) per dwelling, depending on:

- the experience of the home designer and builder;
- the size of the dwelling (it is easier to design larger dwellings that incorporate Lifetime Homes Standards cost effectively than smaller ones);
- whether Lifetime Homes design criteria were designed into developments from the outset or a standard house type is modified (it is more cost effective to incorporate the standards at the design stage rather than modify standard designs); and
- Any analysis of costs is a 'snapshot' in time. The net cost of implementing Lifetime Homes will diminish as the concept is more widely adopted and as design standards, and market expectations rise (Martin, 2006).

The most significant factor when considering the costs of a lifetime home design is whether the home had been designed to incorporate Lifetime Homes criteria from the outset or was the adaptation of accessibility features done by modifying an existing standard design. (Sangster, 1997) (Martin, 2006).

There is no evidence in Canada that the concepts of accessible design for homes is gaining any general acceptance and evidence from the UK suggests that currently only three percent (3.4%) of homes have the four recommended features needed as part of a home for someone with mobility problems to visit (level access, flush threshold, bathroom at entry level, and circulation space) (Oldman, 2014). The conclusion is that in Canada, as in many countries, seniors are currently living in places that will work against them in the future in their desire to age in place.

Denial of Aging

Four years after the premiere of the original 1904 production of *Peter Pan; or, the Boy Who Wouldn't Grow Up*, J. M. Barrie wrote an additional scene entitled *When Wendy Grew Up. An Afterthought* that was later included in the final chapter of the book *Peter and Wendy*. (Barrie, 1911) In this final scene, Peter returns for Wendy years after the main tale took place but Wendy is now grown up and Peter takes her daughter Jane with him to Neverland. It is this meeting of the fantasy boy who will never grow up and never be ill with the person who does just that which reflects how many of us deal with the realities of growing older. We deny the reality of our aging and act like Peter Pan, never growing old

or infirm, unlike Wendy who has aged and greets Peter from a wheelchair, never to go upstairs and out the window again.

Someday, as Muriel Gillick points out in her book *The Denial of Aging: Perpetual Youth, Eternal Life, and Other Dangerous Fantasies*, you too will be old (Gillick, 2006). She argues that no matter what vitamin regimen you are on now, you will likely one day find yourself sick or frail and that this magical thinking of denial of the processes of aging causes individuals to make many poor decisions. Gillick chronicles the stories of elders who have struggled with housing options, with medical care decisions, and with finding meaning in life. She concludes that one action for society is to ensure that as we age we have options for housing choices that consider autonomy as well as safety.

What processes lie behind the avoidance of future planning for an accessible home?

There is general agreement that individuals engage in behaviour that is consistent and congruent with their self-image (Sirgy, 1982). One element of a person's self-image is their individual perceptions of their age. Researchers have consistently identified that as we grow older we self-identify that we may feel younger, look younger, think younger and act younger than our chronological age and that the average gap between one's chronological age and their perceived age is an average of thirteen years (Kleinspehn-Ammerlahn, 2008). Several studies have shown that this gap actually increases with each year of chronological aging (Montepare, 1989) (Barak, Inner-ages of middle-aged prime lifers, 1998), (Uotinen, 1998), (Westerhof, 2003). In a cross-cultural review, Barak found that age identification is integral to life-course development, with the universality of subjective and ideal age perceptions consistent across fifteen nations (Barak, 2009).

Henderson, Goldsmith and Flynn examined the demographic characteristics of gender, marital status, education, income, and race and the four dimensions of subjective age: feel-age, look-age, do-age, and interests age and found no evidence of any relationships (Henderson, 1995). They concluded that subjective age would best be explained by psychological measures, in particular, self-concept. This subjective age has also been called a person's *identity age* (Settersten, 1997).

SELF-CONCEPT AND CONSUMER DECISION - MAKING

As we age we make decisions based on many variables and one of the more important of these is our self-concept. What happens when our self-concept of our age is out-of-line with our chronological age? Will we make poor decisions or ignore factors that appear logical to consider such as making our homes more livable for aging?

Work by Dunning discusses the reverse direction of consumer decision-making, namely that a consumer decision “would not be a calculation leading to an outcome, instead it would be the outcome leading people to realign their beliefs in some way to justify an outcome already preferred” (p. 238) (Dunning, 2007). In this case the belief is that one is not going to grow old and infirm but rather one is going to somehow, magically, arrive at the final days of their life in some idyllic state of health, fading into the final outcome. This denial of aging could then lead to decisions that would ignore changes and modifications to one’s home that could have made that home more habitable as one aged. These ideas of self-image consistency are grounded in the early days of balance theory development with Heider’s balance theory and Festinger’s cognitive dissonance theory, two examples of early thinking about the need for individuals to be consistent in their beliefs, by not holding ones that contradict one another (Heider, 1946) (Festinger, 1957).

Dunning (2007) provides several illustrations of how this distortion in evaluation, the drive to harmonize one’s beliefs so that one’s sacrosanct beliefs about their self are consistent with their actions, could prompt people to make unwise and risky decisions: “people shape their judgments of others to maintain sacrosanct beliefs about their competence and character - that positive self-views are immovable beliefs that other opinions and attitudes must align with harmoniously. In a word, people *regulate* their views of the world to affirm an image they want to have about themselves” (p 242). In the case of thinking about the home and how the actual space will work with the individual as they age, the ideas of incorporating design features that would make aging in place a possibility are incongruent with the magical thinking that one’s life course will run smoothly to the end.

This magical thinking is further evidenced in recent research looking at Canadians and their preparations for retirement (Morneau Shepell, 2016). When asked about their current health, 96% describe their current health as good, very good, or excellent and 86% agree that they will be in good health when they choose to retire. This despite the reality that

61% of these same respondents indicated that they already suffered from one or more chronic health conditions like hypertension and arthritis. Even more magical is the idea expressed by these Canadians that they will be able to withdraw, on average, 15% of their total savings each year following retirement, which is about three times the rate that is typically recommended by financial advisors and would deplete these pensions well before the current average end-of-life actuarial estimates (p. 8).

Aging has an impact on the choices one makes, with the consequences of immediate actions being more important than the consequences of delayed actions. (Hershey, 2007), (Lockenhoff, 2011) Research has identified that this temporal discounting, the tendency to consider positive or negative outcomes as of less importance as these occur further out in the future, can result in persons making decisions that discount the value of long-term outcomes. (Frederick, 2002) In the case of making decisions today for the design and features of a home, making choices that might not have any relevance until a point far in the future when one grows old and infirm, becomes less of a priority. In fact, if the perception of an old age where one fades gracefully into some magical final resting place dominates the individual’s self-concept, choices that act contrary to this self-image are even more likely to be discounted. The inevitable outcome is an inventory of homes built for today and not tomorrow. These homes have many barriers to universal accessibility included in their design and these barriers will make life difficult or impossible when consumers do become infirm or unwell. Even more important is the fact that these homes will present barriers at all stages of the life-course, be it a child who comes home in a wheel-chair as the result of a sporting accident or a relative with mobility challenges who will not be able to visit.

Conclusions

The choice of where to live changes over an individual’s life-course. In Canada the pattern begins at under age 30 with many renting (91.5%) and then progresses through the years until those over 55 are predominately home owners (Canada Mortgage and Housing Corporation, 2006). Different types of housing - be they apartments, townhouses, detached suburban homes or condominium apartments - tend to be associated in peoples’ minds with certain kinds of occupants – single renters, childless couples, mature families, empty nesters, and seniors and so on. Age is typically one of the defining attributes of such classifications. It is

not that any particular housing type is exclusive to a given age, but rather that certain types of housing are more common at certain ages.

In Canada, most people who become home owners do not return to renting until after the age of 75. Some will move more frequently while many others will stay in one home for many years. People are likely to be making choices about what type of housing they will select several times over their life-course (Canada Mortgage and Housing, 2010).

As we grow older we deny our aging and this denial leads one to avoid or ignore the possibilities of changing the design of their home so that the desired outcome, aging in place, would be more likely to happen. This avoidance of making, what appears on the surface, to be a rational decision is made even more likely because these decisions are better made when a home is being designed, before it is built. Individuals would then need to consider these design decisions, such as those presented in the lifetime homes concept, at a younger age, a point in time when the discrepancy between the individual's self-concept and the reality of aging is likely to be so wide that these rational choices for the future do not enter the decision process. This would require a person to challenge one's sacrosanct beliefs about self. The idea that one will never grow old and never become ill has not been challenged by the reality of growing older and unless some specific incident has triggered the need for home modification, changes are unlikely ever to be considered.

In conclusion, this gap in understanding between the ideal-self and what will actually occur as we age has resulted in such strong denial of the impacts of aging that many consumers will be ill-prepared for their real future and will find it almost impossible to age in place. This consequence has important implications for society as we rapidly face the impacts of the grey tsunami. This topic presents an important research area for more in-depth investigation. By better understanding this denial of the consequences of aging on the decision of where and how to live, we can better deduce communication and marketing strategies to close the gap between hopes and wishes and the reality of growing old and wanting to age in place.

For marketing, the implications of this self-concept conflict between hopes and wishes for an idyllic future and the realities of everyday living are likely to be found in many purchase categories, particularly the one of unsought goods. There is a need to better understand decision - making that would appear

rational and positive to the individual but wishful to the outside observer, an area with much opportunity for marketing researchers to explore in the future.

Shiner, D. (2017), " Why Do We Act Like Peter Pan When It Comes to Decisions About Aging In Place?", *Proceedings of Conference 16 / International Marketing Trends Conference / 2017 / Madrid*, ed. Jean-Claude Andreani and Umberto Collesei, Paris-Venice Marketing Trends Association, [available at www.marketing-trends-congress.com/papers]

References

- American Association of Retired Persons. (2000). *Fixing to stay: A national survey of housing and home modification issues*. Washington: AARP.
- Antonucci, T. A. (1991). Social relationships and aging well. *Generations*, 39-44.
- Barak, B. (1998). Inner-ages of middle-aged prime lifers. *International Journal of Aging and Human Development*, 189-228.
- Barak, B. (2009). Age identity: A cross-cultural global approach. *International Journal of Behavioural Development*, 2-11.
- Barrie, J. (1911). *Peter and Wendy*. London: Hodder & Stoughton .
- Canada Mortgage and Housing. (2010). *Research Highlight: 2006 Census Housing Series: Issue 10—The Housing Conditions of Canada's Seniors*. Ottawa: CMHC.
- Canada Mortgage and Housing Corporation. (2006). *Research Highlight—2001 Census Housing Series: Issue 10—Aging, Residential Mobility and Housing Choices*. Ottawa: CMHC.
- Canada Mortgage and Housing Corporation. (2014, August 09). *Definition of variables*. Retrieved August 09, 2016, from Housing in Canada Online: http://cmhc.beyond2020.com/HiCODefinitions_EN.html
- Che-Alford, J. S. (1998, Spring). Older Canadians on the move. *Canadian Social Trends*, pp. 15-18.
- Cutler, N. G. (1991). The human wealth span and financial well-being in older age. *Generations*, 45-48.
- Department for Communities and Local Government. (2008). *Lifetime homes-lifetime neighbourhoods*. London: Department for Communities and Local Government.
- Dunning, D. (2007). Self-image motives and consumer behavior: how sacrosanct self-beliefs sway preference in the marketplace. *Journal of Consumer Psychology*, 237-249.
- Dykstra, P. V. (1999). Introduction: the life course approach as an interdisciplinary framework for population studies. In P. V. Dykstra, *Population issues: an interdisciplinary focus* (pp. 1-22). New York: Kluwer Academic.
- Farber, N. (2011). *Aging in place: A state survey of livability policies and practices*. Washington: AARP Public Policy Institute and National Conference of State Legislatures.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford: Stanford University Press.
- Frederick, S. L. (2002). Time-discounting and time preference: a critical review. *Journal of Economic Literature*, 351-401.
- Friedan, B. (1993). *The fountain of age*. New York: Simon and Schuster.
- Gillick, M. (2006). *The denial of aging: Perpetual youth, eternal life, and other dangerous fantasies*. Cambridge: Harvard University Press.
- Heider, F. (1946). Attitudes and cognitive organization. *Journal of Psychology*, 107-112.
- Henderson, K. G. (1995). Demographic characteristics of subjective age. *Journal of Social Psychology*, 447-457.
- Hershey, D. J.-L. (2007). Psychological foundations of financial planning for retirement. *Journal of Adult Development*, 26-36.
- Herzog, A. H. (1991). Productive activities and aging well. *Generations*, 49-54.
- Keefe, J. (2011). *Supporting caregivers and caregiving in an aging Canada*. Montreal: IRRP.
- Kendig, H. (1990). A life course perspective on housing attainment. In M. D., *Housing Demography: linking demographic structure and housing markets* (pp. 133-156). Wisconsin: The University of Wisconsin Press.
- Kleinspehn-Ammerlahn, A. K.-G. (2008). Self-perception of aging: Do subjective age and satisfaction with aging change during old age? *Journal of Gerontology*, 337-385.
- Lawton, M. N. (1973). Ecology and the aging process. In C. P. Eisdorfer, *The psychology of adult development and aging* (pp. 619-674). Washington: American Psychological Association.
- Lin, J. (2005). The housing transitions of seniors. *Canadian Social Trends, Winter*, pp. 22-26.
- Litwak, E. C. (1987). Migration patterns among the elderly: A developmental perspective. *The Gerontologist*, 266-272.
- Lockenhoff, C. T. (2011). Age differences in temporal discounting: the role of dispositional affect and anticipated emotions. *Psychology and Aging*, 274-284.
- Martin, J. (2006). *The cost of the lifetime homes initiative*. Bradford: unpublished.
- Mayer, K. (1986). Structural constraints on the lifecourse. *Human Development*, 29, 163-170.
- Montepare, J. L. (1989). You're only as old as you feel: self-perceptions of age, fears of aging, and life satisfaction from adolescence to old age. *Psychology an Aging*, 73-78.

- Morneau Shepell. (2016). *Forgotten decisions: the disconnect between the plan and reality of Canadians regarding health and finances in retirement*. Toronto: Morneau Shepell Research Group.
- Muramatsu, N. A. (2011). Japan: Super-Aging Society Preparing for the Future. *The Gerontologist*, 51 (4): 425-432.
- Mutschler, P. (1992). Where elders live. *Generations*, 7-14.
- Oldman, J. (2014). *Housing in later life*. London: Age UK.
- Preliminary Data from Community Aging in Place, Advancing Better Living for Elders, a Patient-Directed, Team-Based Intervention to Improve Physical Function and Decrease Nursing Home Utilization: The First 100 Individuals to Complete a Centers for Medicare. (n.d.).
- Rowles, G. (1987). A place to call home. In L. E. Carstensen, *Handbook of clinical gerontology* (pp. 78-89). New York: Pergamon Press.
- Rubinstein, R. (1989). The home environment for older people. *Journal of Gerontology*, 45-53.
- Sangster, K. (1997). *Costing lifetime homes*. York: Joseph Rowntree Foundation.
- Settersten, R. M. (1997). The measurement of age, age structuring, and the life course. In A. R. Inc., *Annual Review of Sociology* (pp. 233-261). Palo Alto: Annual Reviews Inc.
- Shiner D., S. R. (2010). *Senior's housing: Challenges, issues, and possible solutions for Atlantic Canada*. Halifax: Atlantic Senior's Housing Research Alliance.
- Shiner, D. (2007). *Report on the Atlantic seniors' housing and support services survey*. Atlantic Seniors Housing Research Alliance (ASHRA).
- Sirgy, J. (1982). Self-concept in consumer behaviour: a critical review. *Journal of Consumer Research*, 287-300.
- Statistics Canada. (n.d.).
- Statistics Canada. (2015). *Population Projections for Canada (2013 to 2063), Provinces and Territories (2013 to 2038) (Catalogue number 91-520-X)*. Ottawa: Statistics Canada.
- Szanton, S. e. (2015). Preliminary Data from Community Aging in Place, Advancing Better Living for Elders, a Patient-Directed, Team-Based Intervention to Improve Physical Function and Decrease Nursing Home Utilization: The First 100 Individuals to Complete a Centers for Medicare. *Journal of the American Geriatric Society*, 371-374.
- Tetlow, R. (2006). *Continuing care retirement communities: A guide to planning*. York: Joseph Rowntree Foundation.
- Uotinen, V. (1998). Age identification: a comparison between Finnish and North-American cultures. *International Journal of Aging and Human Development*, 109-124.
- Wagnild, G. (2001). Growing old at home. *Journal of Housing for the Elderly*, 71-84.
- Westerhof, J. B. (2003). Forever young?: A comparison of age identities in the United States and Germany. *Research on Aging*, 366-383.
- WHO. (2015). *World Report on Aging and Health*. Geneva: World Health Organization.

Tables

Table 1

Summary of the 10-most commonly prioritized home modifications and repairs

- 1 . Install railings in stairwells
- 2 . Install or tighten railings at home entrances
- 3 . Install grab bars in tub area
- 4 . Install nonskid safety treads for tub or shower floor or supply rubber bath mats
- 5 . Improve lighting (repairs, motion sensor lights, bulbs)
- 6 . Repair holes, broken tiles, or tears in linoleum flooring
- 7 . Install raised toilet seats
- 8 . Add chain extensions to ceiling fans and lights
- 9 . Install flexible shower hoses
- 10 . Install doorbells

Note. From Preliminary Data from Community Aging in Place, Advancing Better Living for Elders, a Patient-Directed, Team-Based Intervention to Improve Physical Function and Decrease Nursing Home Utilization. By Szanton, S. et al, 2005 Journal of the American Geriatric Society, 371-374.

Analizing The Structural Relationship Between Global And Latent Quality Of Tourism Online Distribution

Abstract

PURPOSE: To investigate the measurement of the website quality and the relationship between observable and unobservable perceived quality by online tourism consumers, with the aim to assist the tourism agents involved in electronic channels.

METHODOLOGY: Based on the review of the specialized literature, the research identifies reflective indicators and criteria as potential dimensions of a level of latent quality from the online tourist consumer's perspective. Several first-order measurement models and one second-order measurement model are tested. Then, a cause-effect relationship is proposed between latent quality and global perceived quality through Structural Equations Models. The data was gathered through a survey addressed to a sample of an Internet users' panel administered by a specialized marketing research company.

RESULTS: The first-order measurement models as well as the second-order model are validated. The postulated relationship through a structural model is confirmed. The latent quality reflected by different first order dimensions explains almost 50% of the global perceived quality of the tourism online distribution channel.

CONCLUSIONS: Each confirmed dimension reflects, in a different level, the latent quality variable. This fact suggests different kind of approaches to be followed by the tourism companies in order to improve the latent quality of their online services. Tourism companies should try to improve the different dimensions of latent quality in order to be better appreciated by users as providers of a higher global quality. There are other determinant variables, not included in the cause-effect model validated, which have to be identified through future research in order to explain a higher level of global perceived quality.

Key words: Dimensions, Global quality, Latent quality, Online distribution channel, Tourism.

Acknowledges: IMPROVE, Consolidated Research Group. Diputación General de Aragón (Spain) & University of Zaragoza (Spain) Research Project: JIUZ-2016-SOC-06: "Processes of the Tourism Sector. The Participation of tourist and the Implementation and Management of e-WOM".

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1. Introduction

Since 2010, tourism activity is increasing in Spain. In 2016, tourism was the main engine of economic growth and employment of the country. It provided the 16% of national GDP and the 20% of employment. Spain received 75,6 millions of visitors, mainly from the United Kingdom, France and Germany (Exceltur, 2017). The online travel reservation at the end of

2016 accounted more than 12,500 millions of euros. The data show the importance of the tourism industry in the Spanish economy.

The distribution system in the tourism sector serves to an effective production and distribution of the tourist product (service). The fact is that more than 60% of visitors use the electronic channel to book, confirm and pay for tourist services (Frontur, 2012). Given that the structure of the distribution system influences consumer decisions, business models and marketing strategies (Pearce et al., 2004), determining the success of the business (Vázquez et al., 2009), first of all, companies need to know the perspective of the consumer.

Quality, the first output offered to customers and consumers by a company, has to be measured both regarding the different service attributes and the global perceived quality level. Therefore, it is essential to review the role of the perceived quality in the new scenario and the available measurement instruments. In this way, the development of online tourism channel might require a re-identification of the perceived quality components from the users' point of view and its measurement instruments.

Bearing in mind the new role of the consumer in the distribution of online tourism services as an interactive participant in the online purchase process (production and distribution processes) and as the final judge of service, the aim of this research is to investigate the multidimensionality of the perceived quality by users of tourism websites and its measurement, as well as the relationship between observable and unobservable perceived quality by online tourism consumers. The final objective is to provide some lights to the tourism agents involved in electronic channels. The research questions are as follows:

- How to measure the perceived quality of the different online service attributes offered by tourism companies in electronic channels?
- Which is the relationship between the

perceived quality of the electronic tourism services attributes and the global perceived quality?

- What are the implications of measuring perceived quality through the evaluation of its components and of doing it through the global evaluation of the service quality?

In order to provide an answer to the first question, we take an advantage of the prior contributions of the literature to identify potential components of perceived quality, postulated as a multidimensional variable. Different measurement models will be tested, both first and second-order. To answer the second question, a structural cause-effect relationship is proposed between latent variable and global (observable) quality. The validation and confirmation of the different models allow us to conclude a validated measure of web site perceived quality components as well as the existence of differences between this measurement way and a global measurement. Companies have to take into account this differences when they decide the measurement procedures.

2. Literature background

The online channel has restructured the tourism sector and changed the behaviour of involved agents. Authors as Cooper et al. (2008) affirm that Internet and e-commerce have been positive for tourism consumers, providers and intermediaries. Anyway, the consumer assumes new functions (Berné et al., 2012) and the service co-creation is easier, and involves emotional links, communication and knowledge as factors in progress.

Transactions in digital markets are unique acts, being essential to establish emotional links with the customer through communication and knowledge. Currently, digital consumers are able to evaluate sell activities and business strategies. Their active role in the online channel allow them sharing knowledge and experiences, using effectively the technology, and having a stressed participation in commercialization of products. The digital tourist (Marques et al, 2011) is also called "adprosumer" because of performing a triple function announcing, producing and using tourism services (Okazaki et al., 2011).

The required higher level of participation of customers in the online purchase and distribution tourism processes is essential to promote market and distribution channel changes. In this sense, Mills and Law (2004) affirmed that Internet has changed the tourism activity and consumers behaviour. The

behaviour of the consumer moves towards greater dependence on their know-how through the use of the technology, increasing their expectations of choice to achieve greater added value, better results and greater convenience in the purchase of their travel products-services. Moreover, Internet allows avoid to the intermediaries (Kaynama y Black, 2000) and activate B2C direct channels through their websites. The intermediaries react in order to maintain positions. The tourism distribution system has moved from disintermediation to re-intermediation (Myung et al., 2009). Re-intermediation reinforces the system because of the value added by intermediaries, which may be taken advantage of by providers and consumers (Sarmiento, 2016), where direct and indirect channels coexist as well as vertical and horizontal competition, increasing rivalry.

On the other hand, the first customer experiences are key to build reminds and expectations. Instinctively, customers compare each new experience with previous, positive or negative experiences. Market conditions complement this feelings (market concentration, industry characteristics and rivalry), as well as competition, communication and personal situation of

the customer. Therefore, the traditional system of value creation, focused on business, is obsoleted.

Both, new position of the consumers and new market conditions, claim reviewing the measurement of the tourism service offered by the company through online channels. The improvement of the three levels of results considered by a company focused on the customer, which shape the chain of value quality-satisfaction-loyalty, depends on the use of effective measures. Focusing on the research on the online service quality, we consider Zeithaml and Bitner (2000) statement, which affirm that quality is a measurement of the customer judgement regarding overall excellence and superiority of a company or entity. Perceived quality is defined as the first level of output offered by companies that will determine to a large extent the second level, and this in turn the third, loyalty (Berne et al. 1996). As a latent (unobservable) variable, it can be included in a model as a result of the combination of other indicator variables. In this case, they are attributes of de service, valued by customers and consumers. Global quality is other way to measure the first level of output that a company offers. It deals with an observable variable resulting from collecting the direct manifestations of global perceived quality of a service by customers, online tourist in

our research context. Its usefulness is limited to a global appreciation. For this reason, establishing a relationship between the two variables can offer explanatory elements of the processes under study.

Before deciding to make an online purchase, a user perceives certain level of quality of the offered service through the electronic medium. This perception, if it is at least equal to the user's expectations, could lead them to make the decision to purchase. While the electronic medium provides perceptions pertaining to the use thereof for contracting services, tourists enjoy those services at a later time, wherefore their experience is a combination of both digital

and in-person actions. Both are essential for identifying the results of a market-oriented company (Grissemann and Stokburger-Sauer, 2012).

The measurement of e-commerce perceived quality

The research on perceived quality in the e-commerce context -mainly focused on the web page used for a purchase- has configured it as a multi-dimensional concept. In this regard, prior research was initially targeted at identifying the utilitarian aspects and their measurement scales (e.g. Kaynama and Black, 2000; Law and Leung, 2000; Kim and Lee, 2004; Kim and Lee 2005; Ho and Lee, 2007), and hedonic aspects were considered later (e.g. Vázquez et al., 2009). Nevertheless, empirical applications either avoid the measurement of these latter aspects, or use indirect measurements such as the web page design (García and Garrido, 2013), a utilitarian attribute that leads back to visual appealing (Park and Gretzel, 2007), or the level of sociability perceived by users (Barnes and Vidgen, 2014). Moreover, whenever that a direct measurement has been used through indicators of visual appealing (Park et al., 2007), it hasn't been found as a significant determinant of the results. In general, there is a parallelism of all these web page elements with the e-store or e-channel attributes identified in other online contexts (Ganesh et al., 2010, Betancourt et al., 2017).

3. Methodology

Data collection and measurement

A structured questionnaire was prepared to obtain the necessary information to be able to provide answers to the research questions. The questionnaire was targeted at online travel consumers who responded some questions about their latest consumption experience. A company

specialising in market studies was engaged to distribute the questionnaire and select a sample. The total of valid questionnaires delivered by the company in charge of the fieldwork was 408. Participation quotas were initially requested from the company for an approximation to the specifications observed in literature.

The measurement of the perceived quality of a web page included the indicators used the most in literature, three of which referred to utilitarian quality (ease of use, information provided by the page and customer service) and one to hedonic quality (attractiveness of the web page). This latter criterion was measured through an overall measure, on a points-scale from very unattractive to very attractive (Sauro, 2015). Thus, the perceived quality of a web page is postulated as a second-order latent variable (Table 1).

Table 1. Criteria, indicators of the questionnaire and prior references

EASE-OF-USE	
P1. Ease of access to the web page. P2. Possibility offered by the company to combine tourism products in a single order. P3. Perceived clarity (ease of identification) about the company's products and services on its web page. P4. Preciseness (absence of ambiguity) of the definition of the products and services on the company's web page. P5. Purchase payment modes offered through the online service. P6. Task of consumers in the event that they may have combined products in the last transaction or in other, previous transactions with the same company to get the desired combination. P7. Time used to finalise the purchase.	Kaynama and Black (2000) Donthu (2001) Jeong and Lambert (2001) Madu and Madu (2002) Kim and Lee (2004) Kim et al. (2005) Park et al. (2007) Verhoef et al. (2007; buying time) Seiders et al. (2007; accessibility) Jaiswal et al. (2010) Ganesh et al. (2010; ease of payment)
INFORMATION ATTRIBUTES	
P8. The information provided by the company, online, for making the purchase. P9. ... provided by the company's web page about the characteristics of the contracted tourism service. P10. ... from the web page about the variety of the online tourism products-services offered by the company.	Kaynama and Black (2000) Jeong and Lambert (2001) Madu and Madu (2002) Kim and Lee (2004) Kim et al. (2005) Park et al. (2007) Verhoef et al. (2007) Ganesh et al. (2010) (merchandise variety) Hung et al. (2014)
CUSTOMER SERVICE	

<p>P11. Procedure for sending the confirmation of reservation, discounts and/or invoices by the company. P12. ... for cancelling the contracted online tourism service. P13. Customer service and/or complaints and claims system available on the company's web page. P14. Privacy and security policy followed by the contracted online service with respect to the customer's personal data.</p>	<p>Kaynama and Black (2000) Madu and Madu (2002) Kim and Lee (2004) Kim et al. (2005; 2009 – security-) Park et al. (2007) Jaiswal et al. (2010; privacy, security)</p>
<p>VISUAL ATTRACTION</p>	
<p>P15. Attractiveness of the web page where the tourism service has been contracted.</p>	<p>Kaynama and Black (2000) Kim et al. (2005; 2009) Bauer et al. (2006) Urban et al. (2009) Ganesh et al. (2010) García and Garrido (2013)</p>

The opinion questions were measured through semantic differential scales of 11 points, from 0 for the least favourable option to 10 for the most favourable option regarding the specific proposal. Global quality was measured through a direct affirmation, from 0 (totally disagree) to 10 (totally agree).

Characteristics of the sample

Sex, age and level of studies are shown in Table 2. Regarding the geographic origin of the respondents, the greatest weight by autonomous community corresponds to Madrid (19.6%), followed by Catalonia (18.1%), Andalucía (14.5%) and the Community of Valencia (10%). This matches the population distribution in Spain.

The total of different companies hired specified by the respondents is of 62. The companies used the most by order of frequency are Booking (14.5%), eDreams (10.8%), El Corte Ingles (10.3%) and Rumbo (7.1%). The study by Sarmiento (2016) coincides with the results regarding the companies Booking, eDreams and Rumbo as the online travel agencies named the most by respondents in the same geographic context of study (Spain). These data are consistent with the concentration of companies in the sector: the top 5 of the Hosteltur Ranking of Online Agencies is led by two mega-groups resulting from international mergers (Odigeo-eDreams and Bravofly-Rumbo).

Table 2. Characteristics of the sample

Sex		Level of studies	
Male	50.7%	Primary education	1.5%
Female	49.3%	Secondary education (mandatory secondary education)	6.6%
		Higher secondary education	19.1%
Age		Uncompleted university studies	10.5%
18-30	28.2%	Associate Degree / Bachelor's Degree / Masters Degree	
31-55	46.6%	Post-graduate/Doctoral studies	51.9%
Over 55	25.2%	Vocational training (post-secondary)	2.2 %

Measurement Models and Structural Model

The literature reviewed serves to identify the proposed variables and allows supporting the content validity of the indicators selected for latent quality. First of all, we identify the underlying structure for each of the proposed dimensions (Exploratory Factorial Analysis, EFA, Principal Components PC, Varimax rotation). Subsequently, the measurement models of the various postulated first order dimensions of the latent quality of web pages are empirically validated (Confirmatory Factorial Analysis, CFA are therefore conducted). After confirming the corresponding measurement models by analysing their statistics and the overall goodness-of-fit indexes, the relationship between latent and global quality is tested through SEM (SPSS 22 and EQS 6.0).

Ease-of-Use Model

After the corresponding PCA with Varimax rotation (VM) of the first seven indicators (P1 to P7), one component that explains 59.54% of the variance is obtained (Table 3). It groups together all the indicators (F1); it is called Ease-of-Use (EU). This component refers to functionality, to the accessibility of a website, to consistency and effective browsing, to search capacity and to the search for desired products and services. EU is a dimension that refers to the degree of effort that online customers give to the electronic medium (Donthu, 2001). Table 4 shows CFA model overall goodness-of-fit statistics and indexes.

Table 3. Ease-of-Use. EFA-PCA-VM

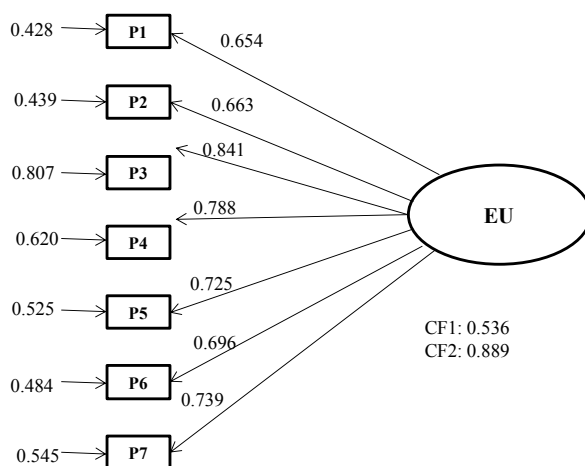
	F1
P1 Ease of access to the web page...	0,719
P2 Possibility offered by the company to combine tourism products in a single order ...	0,696
P3 Perceived clarity (ease of identification) about the company's products and services on its web page ...	0,845
P4 Preciseness (absence of ambiguity) of the definition of the products and services on the company's web page ...	0,818
P5 Purchase payment modes offered through the online service ...	0,772
P6 The task to get the desired combination, in the event that you may have combined products previous transactions with the same company...	0,737
P7 Time used to finalise the purchase...	0,803
% of explained variance	59,544
Cronbach's alpha (Nunnally, 1978)	0.885

Table 4. EU Model. Goodness-of-Fit

	d.f.	χ^2_{S-B}	P	R-RMSEA	SRMR	GFI	AGFI	R-BBN	R-CFI
EU	14	29.479	0.009	0.054	0.038	0.957	0.913	0.964	0.981

The reliability coefficients of the majority of the observed variables have values that exceed 0.5, except for items P1, P2 and P6, whose estimated parameters take values of 0.654, 0.663 and 0.696. However, due to the importance given to these aspects in literature, the decision was made to keep them. On the other hand, a comparison of the values taken by the standardized factor loadings and the correlations between factors demonstrate the discriminant validity and the convergent validity of the model (Figure 1).

Figure 1. EU Model. Ease-of-Use Parameters and Coefficients



Service Information Model

For P8 to P10, the PCA-VM resulted in a single component that explains 75.5% of the variance. The indicators reflect the importance of offering quality information. An appropriate quantity of information/content is essential to attracting visitors to a website. The purchasing experience of customers is increased by the integrity, uniqueness, preciseness and entertainment value of a website, as well as the opportunity for information/content (Kaynama and Black, 2000; Aladwani and Palvia, 2002; Sigala and Sakellaridis, 2004).

Service information (SI) can be defined as the degree to which a user believes that the information or content is useful, updated and reliable. Cronbach's Alpha coefficient results in a value of 0.862, thus allowing its reliability to be accepted (Table 5).

The corresponding CFA was subsequently conducted. Since this model did not show degrees of freedom, a restriction was imposed on the equality of factor loadings, which allowed obtaining two degrees of freedom for the model (see Table 6 and Figure 2).

Reliability coefficients of the dimension (CF1and CF2) offer evidence of reliability and of the convergent validity of the analysed latent variable.

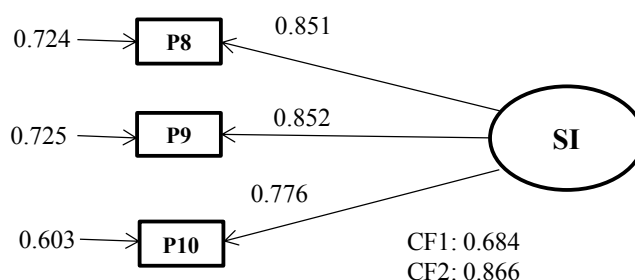
Table 5. Service Information. EFA-PCA-VM

	F2
P8 The information provided by the company, online, for making the purchase...	0,891
P9 The information provided by the company's web page about the characteristics of the contracted tourism service...	0,904
P10 The information from the web page about the variety of the online tourism products-services offered by the company...	0,863
% of explained variance	75,523
Cronbach's alpha	0,862

Table 6. SI Model. Goodness-of-Fit

	d.f.	χ^2_{S-B}	P	R-RMSEA	SRMR	GFI	AGFI	R-BBN	R-CFI
SI	2	0.6012	0.740	0.0001	0.029	0.996	0.988	0.998	0.999

Figure 2. SI Model. Reliability Parameters and Coefficients.



Customer Service Model

Customer service is determined through the transmission of an appropriate response to e-mail requests or complaints, as well as order confirmations, which represent an important factor in the assessment of a web page by customers (see Yang and Jun, 2002; Long and McMellon, 2004). The dimension could be defined as the desire or willingness for customer service, thereby providing a quick, streamlined service in an online context.

There are four indicators recorded in literature (P11 to P14). Using PCA-VM, the existence of a factor that we call Customer Service (CS) is confirmed. It explains 64.1% of the variance and groups together the 4 proposed items pertaining to the transmission both reservation confirmation and related information (discounts, invoices), the reservation cancellation procedure, the customer service system and the privacy and security policy. Cronbach's alpha takes a value of 0.805 (Table 7).

The estimate of the CFA model shows the overall goodness-of-fit statistics and indexes shown in Table 8. This CS Model presents adequate values of the R-RMSEA statistic and of the goodness-of-fit indexes. The variable pertaining to the procedure for cancelling the tourism service is the one that receives a lower value, but the decision was made to keep it in the model due to the importance given to this aspect in literature (see Yang and Jun, 2002; Long and McMellon, 2004) (Figure 3).

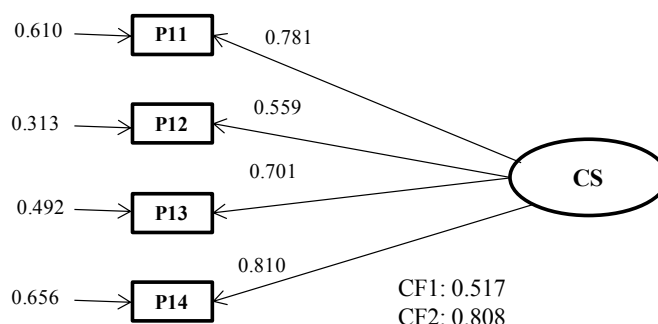
Tabla 7. Customer Service. EFA-PCA-VM

	F3
P11 Procedure for sending the confirmation of reservation, discounts and/or invoices by the company...	0,825
P12. Procedure for cancelling the contracted online tourism service...	0,709
P13. Customer service and/or complaints and claims system available on the company's web page...	0,813
P14. Privacy and security policy followed by the contracted online service with respect to the customer's personal data...	0,848
% of explained variance	64.085
Cronbach's alpha	0.805

Table 8. CS Model. Goodness-of-Fit

	d.f.	χ^2_{S-B}	P	R-RMSEA	SRMR	GFI	AGFI	R-BBN	R-CFI
CS	2	9.455	0.009	0.098	0.040	0.974	0.868	0.966	0.973

Figure 3. CS Model. Reliability Parameters and Coefficients.



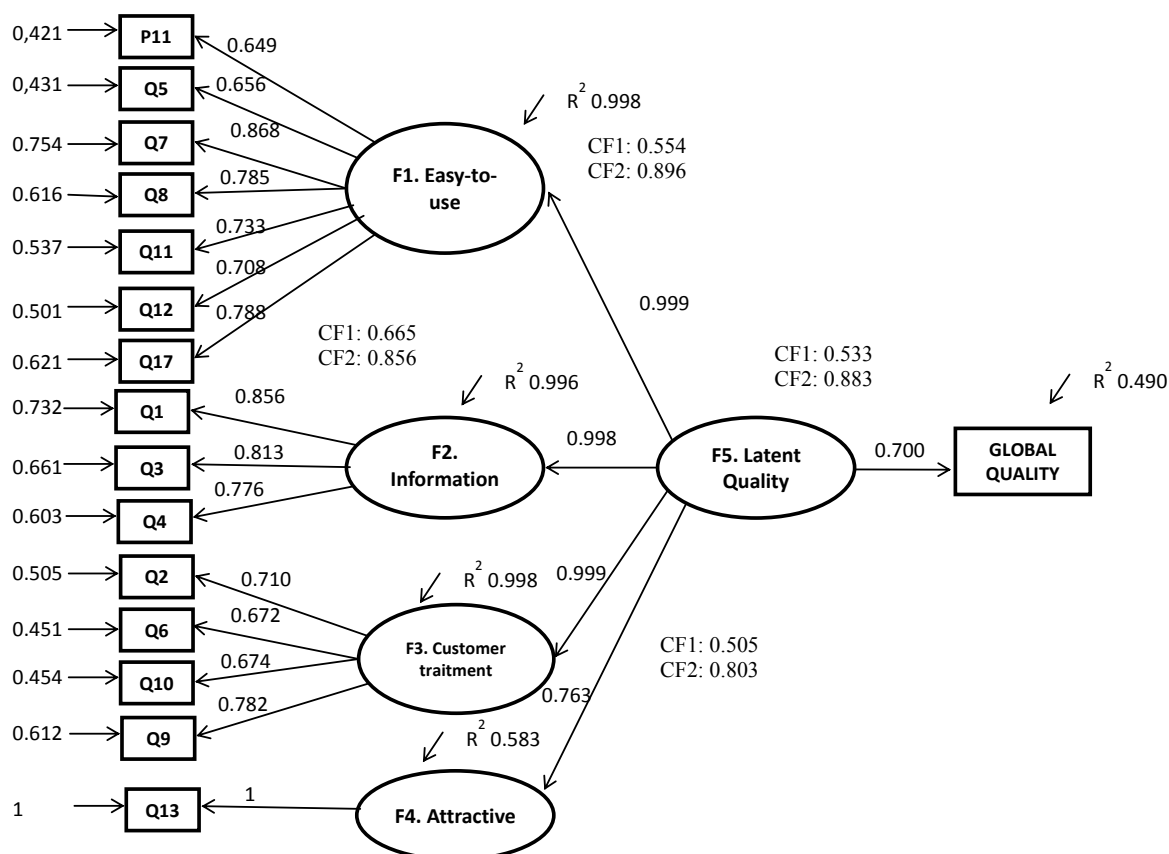
Adding the visual attractive variable to this three identified first-order dimensions, the next step is testing their participation as reflective variables of a second-order latent variable: (multidimensional) web site quality. The confirmatory analysis of this model and the relationship between the second-order latent variable and the observable global perceived quality are tested through Structural Equations Models, with EQS software. Based on these results and on the goodness-of-fit (Table 9), we can accept the adequacy of the entire model.

Table 9. Entire Model. Goodness-of-Fit

	g. l.	χ^2	S-B	P	R-RMSEA	SRMR	GFI	AGFI	R-BBN	R-CFI
Entire Model	101	147.8777	0.00165	0.036	0.040	0.881	0.840	0.939	0.980	

This construct explains almost the 50% (R2 value of 0.49) of the level of global perceived quality offered by online tourism companies from the consumers' point of view. The estimated parameter of the relationship between the two quality measurements is 0.7. Both results indicate a remarkable approaching between the two measures and warn of some differences between them (Figure 4).

Figure 4. Results of the Second-order measurement Model and Structural Relationship between Latent and Global quality of website tourism services



4. Conclusions

This research has achieved to provide an answer to the three formulated questions. First of all, the results obtained corroborate the existence of a latent quality of the tourism web site reflected by four dimensions of the first order. They are related to the ease-of-use of the instrument, the information it provides to the perceived customer care through the online medium, and the attractiveness of the web (entertainment). The first two reflect to a greater extent the latent quality of the tourist online service for the user, taking into account their participation in the production. In addition, the third one dimension is a new incorporation in quality measurement models with perhaps more development in the future due to his hedonic character.

The second research question is answered through the confirmation of a significant effect of latent quality dimension on the overall web page quality, perceived by the digital tourists. This means that both measuring ways may be considered in order to evaluate the first level of output offered by online tourism agents. Nevertheless, they are not exactly the same and its use has to be differentiated.

In this point, the answer of third research question emerges: management can take an advantage using the validated structure of latent quality, through its different dimensions and items, as a detailed performance measurement whose results will serve to assist the decision-making. The importance to control the value of the different service attributes, from the point of view of digital tourist consumer, increases having proved its direct impact on the overall perceived quality of the offer. Nevertheless, the direct measurement of global quality might be used too. In this case, our research highlights that there are differences to be considered. On the

one hand, a global measure of perceived quality simplifies the procedure, but does not include the detail. On the other hand, the use of the latent quality scale, while offers more detail, does not provide the entire explanation of the global perceived quality. This fact has academic implications in terms of modelling that have to bear in mind.

The application of the research is limited to the Spanish context so that should be checked in other contexts. Although the explanatory capacity achieved by structural model is almost

50%, future research should be aimed at identifying other explanatory variables of global quality. In addition, it is matter of interest to check the perceived quality effects on the following variables belonging to the value chain quality-satisfaction-loyalty.

5. Bibliography

Aladwani, A.M. & Palvia, P.C. (2002): "Developing and validating an instrument for measuring user-perceived Web Site Quality", *Information and Management*, vol. 39, 6, pp. 467-476.

Barnes, S.J. & Vidgen, R.T. (2014): "Technology socialness and Web site satisfaction", *Technological Forecasting and Social Change*, vol. 89 (1), pp. 12-25.

Bauer, H.H., Falk, T. & Hammerschmidt, M. (2006): "eTransQual: A transaction process-based approach for capturing service quality in online shopping", *Journal of Business Research*, vol. 59 (87), pp. 866-875.

Berné, C., Múgica, J.M. & Yagüe, M.J. (1996): "La gestión estratégica y los conceptos de calidad percibida, satisfacción del cliente y lealtad". *Economía Industrial*, 307, pp.63-74.

Berné, C., García-González, M., García Uceda, M.E. & Múgica, J.M. (2012): "Modelización de los cambios en el sistema de distribución del sector turístico debidos a la incorporación de las

- tecnologías”, Cuadernos de Economía y Dirección de la Empresa, vol. 15 (3), pp. 117-129
- Betancourt, R.R., Chocarro, R., Cortiñas, M., Elorz, M., & Mugica, J.M. (2017). “Private sales clubs: A 21st. Century distribution channel. Journal of Interactive Marketing, 37: 44-56.
- Cooper, C., Fletcher, J., Fyall, A., Gilbert, D. & Wanhill, S. (2008): Tourism Principles and Practice, 4th Edition, Financial Times Prentice Hall-Pearson Education (UK).
- Donthu, N. (2001): “Does your Web site measure up?”, Marketing Management, vol. 10 (4), pp. 29-32.
- Exceltur (2017): “España, ante el desafío de convertirse en líder mundial del sector turístico”. <http://www.exceltur.org/wp-content/uploads/2017/08/AGO.17.021.pdf>
- Ganesh, J., Reynolds, K.E., Luckett, M. & Pomirleanu, N. (2010): “Online Shopper Motivations, and e-Store Attributes: An Examination of Online Patronage Behavior and Shopper Typologies”, Journal of Retailing, vol. 86 (1), pp. 106–115
- García-García, F. & Garrido, P. (2013): “Agencias de Viaje online en España: aplicación de un modelo de análisis de sedes web”, TURyDES, vol. 6 (15), pp. 1-15.
- Grissemann, U.S & Stokburger-Sauer, N.E. (2012): Customer Co-Creation of Travel Services: The Role of Company Support and Customer Satisfaction with the Co-Creation Performance”, Tourism Management, vol. 33, pp. 1483-1492.
- Jaiswal, A.A., Niraj, R., & Venugopal, P. (2010). “Context-general and context-specific determinants of online satisfaction and loyalty for commerce and content sites”. Journal of Interactive Marketing, 24: 222-238.
- Jeong, M. & Lambert, C.U. (2001): “Adaptation of an information quality framework to measure customers’ behavioral intentions to use lodging Web sites”, International Journal of Hospitality Management, vol. 20 (2), pp.129-146.
- Kaynama, S. & Black, C. (2000): “A proposal to assess the service quality of online travel agencies: an exploratory study”, Journal of Professional Service Marketing, vol. 21 (1), pp. 63-88.
- Kim, W.G. & Lee, H.Y. (2004): “Comparison of Web Service Quality Between Online Travel Agencies and Online Travel Suppliers”, Journal of Travel & Tourism Marketing, vol. 17 (2/3), pp. 105-116.
- Kim, W.G. & Lee, H.Y. (2005): “Comparison of web service quality between online travel agencies and online travel suppliers”, Journal of Travel & Tourism Marketing, vol. 17 (2-3), pp. 105-116.
- Kim, J., Jin, B., & Swinney, J.L. (2009). The role of retail quality, e-satisfaction and e-trust in online loyalty development process. Journal of Retailing and Consumer Services, 16: 239-247.
- Law, R. & Leung, R. (2000): “A study of airline’s online reservation services on the Internet”, Journal of Travel Research, vol. 39 (2), pp. 202-211.
- Loiacono, E., Watson, R.T. & Goodhue, D. (2002): “WebQual: a Measure of Website Quality”. In K. Evans y Scheer (Eds.), Marketing Educators’ Conference: Marketing Theory and Application, pp. 433-437.
- Long, M. & McMellon, C. (2004): “Exploring the determinants of retail service quality on the Internet”, Journal of Service Marketing, vol.18 (1), pp. 78-90.
- Luque, T. (2000): “Análisis de ecuaciones estructurales”. En Luque T. y Del Barrio, S.: Técnicas de Análisis de Datos en Investigación de Mercados. Pirámide, Madrid.
- Madu, C.N. & Madu, A.A. (2002): “Dimensions of e-quality”, International Journal of Quality & Reliability Management, vol. 19 (3), pp. 246-258.
- Marques, J.O., Alves, A.M. & Martins, C M. (2011): Book of proceedings. International Conference on Tourism & Management Studies, 1, Algarve (Portugal)
- Mills, J. & Law, R. (2004): Handbook of Consumer Behaviour, Tourism and the Internet, Harworth Hospitality Press, New York.
- Frontur (2012): Movimientos Turísticos en Fronteras y Encuesta de Gasto Turístico (Egatur). Informe anual. <http://estadisticas.tourspain.es/es>.
- Myung, E., Li, L. & Bai, B. (2009): “Managing the distribution channel relationship with e- wholesalers:

Hotel operators' perspective", *Journal of Hospitality Marketing & Management*, vol. 18 (8), pp. 811-828.

Nunnally, J. (1987): *Teoría Psicométrica*, Trillas, México.

Okazaki, S., Andreu, L. & Campo, S. (2011): "Servicios turísticos a través del móvil: aplicaciones en marketing turístico", *Investigación y Marketing*, 110, pp. 48-53.

Park, Y.A. & Gretzel, U. (2007): "Success Factors for Destination Marketing Web Sites: A Qualitative Meta-Analysis", *Journal of Travel Research*, vol. 46 (1), pp. 46-63.

Park, Y.A., Gretzel, U. & Sirakaya-Turk, E. (2007): "Measuring web site quality for online travel agencies", *Journal of Travel & Tourism Marketing*, vol. 23, 1, pp.15-30.

Pearce, D., Tan, R. & Schott, C. (2004): "Tourism distribution channels in Wellington, New Zealand", *International Journal of Tourism Research*, vol. 6 (6), pp. 397-410.

Sarmiento Guede, J.R. (2016): "El impacto de los medios sociales en la estructura del sistema de distribución turístico: análisis y clasificación de los nuevos proveedores de servicios turísticos en el entorno online", *Cuadernos de Turismo*, vol. 36, pp. 459-483.

Sauro, J. (2015): "SUPR-Q: A Comprehensive Measure of the Quality of the Website User Experience", *Journal of Usability Studies*, vol. 10 (2), pp. 68-86.

Seiders, K., Voss, G.B., Godfrey, A.L. & Grewal, D. (2007): "SERVCON: Development and Validation of a Multidimensional Service Convenience Scale," *Journal of the Academy of Marketing Science*, vol. 35 (1), pp. 144-156.

Sigala, M. & Sakellariadis, O. (2004): "The impact of users' cultural characteristics on e- service quality: Implications for globalizing tourism and hospitality Web sites". In A. Frew (Ed.), *Information and Communication Technologies in Tourism*, Springer Verlag, Vienna (Austria), pp. 106-117.

Urban, G., Amyx, C. & Lorenzon, A. (2009): "Online trust: state of the art, new frontiers, and research potential", *Journal of Interactive Marketing*, vol. 23 (2), pp. 179-190.

Vázquez, R., Del Río, A. & Suárez, L. (2009): "Virtual Travel Agencies: Analysing the E- service Quality and This Effect on Customer Satisfaction", *Universia Business Review*, vol. 24, pp. 122-143.

Verhoef, P.C., Scott A.N. & Vroomen, B. (2007): "Multi-Channel Customer Management: Understanding the Research Shopper Phenomenon," *International Journal of Research in Marketing*, vol. 24 (2), pp. 129-48.

Yang, Z. & Jun, M. (2002): "Consumer perception of e-service quality: From Internet purchaser and non-purchaser perspectives", *Journal of Business Strategies*, vol. 19 (1), pp. 19-41.

Zeithaml, V.A., & Bitner, M.J. (2000). *Services marketing: integrating customer focus across the firm*, 2nd ed., MA: McGraw-Hill, Boston.

A global model for the image formation of a tourist destination: Evidences from a sun and sand destination in Spain

Abstract

The main objective of this study is to propose a model that identifies: (a) the factors which influence the process of forming an image of a tourist destination; as well as (b) its visitation and recommendation. In order to achieve this research goal, we take into consideration the following variables: information sources, motivations, cognitive, affective and unique images, the intention to visit and recommendation. We also analyse the influence of Web 2.0 in this process. The results show how: (i) motivations for visiting a place are influenced by information sources consulted by tourists, among which social media can be included; (ii) motivations influence the formation of the image; (iii) the intention to visit a destination influences the intention to recommend it. One of the main contributions of this paper is the overall analysis of the entire process behind the formation of an image of a tourist destination. Previous research has frequently analysed parts of this.

Keywords: Destination image, information sources, motivation, Web 2.0., UGC, social media,

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1. INTRODUCTION AND OBJECTIVES

A destination's image influences the decision-making process to purchase a trip and also the intention to visit and recommend said destination (Qu et al., 2011). According to Beerli and Martin (2004), this image is composed of cognitive and affective as well as unique attributes (Qu, Kim and Im, 2011). The cognitive image is determined by the place's characteristics, while the affective image is generated by feelings. The unique image is formed based on the features that make the place different and special.

Information sources as well as personal factors affect the formation of cognitive and affective images (Beerli and Martin, 2004b). Information sources play an essential role in the way the destination is perceived, or the risk that a traveller perceives this decision to involve (Mansfeld, 1992). Tourists consult several information sources before buying a trip. According to Gartner (1993), information sources can be organic, formed by friends and acquaintances; induced, belonging to the authorities of the destination, suppliers or intermediaries, and ads; or autonomous, formed by media, documentaries and movies. Recently, research has been carried out on the Internet as a source of tourist information (Seabra, Abrantes and Lages 2007) or specific services such as search engines (Buhalis, 2003), social networks (Buhalis and Law, 2008), tour operator websites (Zins, 2009), online reviews (Papathanassis and Knolle, 2011) and social media (Mackay and Vogt, 2012). With the massive use of the Internet in the planning of a trip, travellers consult several platforms Webs before deciding where to travel or contract tourist services. Online content provided by UGC (user-generated content) is a primary source of travel information, and social media is a form by which businesses connect with travellers

(Tourism Economics, 2013). Internet sources can be classified as organic, induced and autonomous (Llodra-Riera et al., 2015), although Beerli and Martin (2004a) only considered it as induced.

In this research paper we link preceding models (Beerli and Martin, 2004a; Qu et al., 2011) and propose new relations, such as (i) information sources also influence motivations and (ii) the intention to visit the destination influences the intention to recommend it. Motivations, intentions to visit and recommendation are interesting issues in the study of consumer behaviour.

Some research works have studied travel motivations (Crompton, 1979; Uysal and Jurowski, 1994; Sirakaya et al., 2003), but we have not found any research that analyse if information sources influence the formation of motivations. For this reason, we propose analysing if any relation exists between information sources consulted to plan a trip and the motivations for visiting a destination.

Furthermore, in the models analysed in previous research, we were not able to find any relation between the intention of visiting a destination and the intention of recommending it. As many people do not travel alone, we purport that people recommend destinations to their travel companions before choosing a destination. Therefore, we propose analysing whether in the end the overall image might not be the only factor influencing the intention to recommend a tourist destination and that, in fact, intention to visit a place can also influence the intention to recommend it.

2. Research question

The main findings of our research show how cognitive, affective and unique images of destinations are related to information sources and motivation. Moreover, we show how UGC is a useful information source

which influences the image formed of a tourist destination and the motivations for visiting it; because UGC is an information source more to add to the latent variable construct. And finally, we can demonstrate that the intention to recommendation is not only influenced by overall image, too by the intention to visit the destination.

3. Conceptual Framework

3.1. Formation of the image of a tourist destination

There is no universally accepted scale to analyse the image of a destination (Beerli and Martin, 2004a; Gomez, Garcia and Molina, 2013). Echtner and Ritchie (2003) suggest an ordering of the attributes of a tourist destination, on a scale ranging from psychological to functional, based on previous studies. The functional impression consists of the mental picture, or imagery, of the physical characteristics of the destination. Meanwhile, the psychological impression can be described as the atmosphere or mood of the place.

Other classifications suggest dividing the attributes into cognitive and affective (for example, Qu et al., 2011). Cognitive evaluations imply beliefs or knowledge about the attributes of a destination, whereas an affective evaluation stems from feelings about the destination. According to Qu et al. (2011), the dimensions of the cognitive image of a destination are quality of experiences, tourist attractions, environment and infrastructure, entertainment and outdoor activities and cultural traditions. In this case, the affective image has been measured in terms of pleasing, arousing, relaxing and exciting. In combination, they determine the perceptions held of an overall image of the destination (Baloglu and McCleary, 1999). Beerli and Martin (2004a) consider associations using attributes proposed by previous authors and relationships among

different components of the perceived image and the factors influencing it, including information sources (primary and secondary), motivations, accumulated tourist experiences and socio-demographic characteristics.

Each study has their own set of dimensions and attributes for describing how they influence the overall image and how this global image influences consumer behaviour. Each researcher analyses a different part of the model, making the studies incomplete on their own but complementary when looked at as a whole.

The results of the research carried out by Baloglu and McCleary (1999) explain that perceptual/cognitive evaluations significantly influence affective and overall image evaluations of a destination; affective evaluations significantly affect the overall image of a destination; the variety (amount) and type of information sources used significantly influences perceptual/cognitive evaluations; tourists' socio-psychological motivations significantly influence their affective evaluations of destinations. However, these researchers do not explain if overall image influences consumer behaviour.

Beerli and Martin (2004a) review how information sources, both secondary – induced, organic and autonomous – and primary – previous experience and intensity of visit – as well as personal factors – like motivations – influence the perceived image. They also analyse how cognitive image influences affective and overall image, and how affective image influences overall image. They do not analyse how overall image influences consumer behaviour. It is important to highlight that they studied Internet as and only as an induced information source. It is to say that Internet was only considered used by OMD and tourist providers but not

used for sharing content between travellers through social media.

Qu et al. (2011) focus on how cognitive, affective and unique images influence overall image and how overall image influences consumer behaviour – intention to visit and intention to recommend it. But they do not study the first part of the model related to information sources and motivations.

Taking these three models into account, we can propose a complete model with new paths. For our study we wanted to engage in a more in-depth analysis of information sources, motivations and affective image. Accordingly, in our effort to analyse the image of a tourist destination, we review three models: Beerli and Martin's (2004a) global view of the image, with its focus on the cognitive and functional dimensions; Hosany et al.'s (2007) in-depth consideration of the affective and psychological dimensions; and Qu et al.'s (2011) study of the unique dimension. By connecting these three models, the main objectives of the research are: (1) to define a global model of how the image of a tourist destination is formed; (2) to add new relations to the model. According to Zhang et al. (2014), the destination image has an impact on tourist loyalty, to varying degrees. They found that all image dimensions had significant effects on attitudinal loyalty, behavioural loyalty and composite loyalty. Specifically, overall image has the greatest impact on tourist loyalty, followed by affective image and cognitive image. Of the three levels of tourist loyalty, destination image has the greatest impact on composite loyalty, and then on attitudinal loyalty and behavioural loyalty, in that order. This supports the proposition that destination image not only directly impacts tourist loyalty, but also exerts indirect influences through the mediation of other factors.

In the model that we propose, in line with Zhang et al. (2014), we analyse the relation between the intention to visit (behavioural loyalty) and the intention to recommend (attitudinal loyalty). Furthermore, we seek to analyse if behavioural loyalty can influence attitudinal loyalty. We incorporated the part of Zhang et al. (2014)'s model that explains that the overall image influences the intention to recommend and to visit the destination. Because we would aim to analyse if the visit intention is not only influenced by the overall destination image but also by the intention to recommend this destination, which is something that the previous literature has not addressed yet.

3.2. Internet, social media and user-generated content (UGC)

The Internet plays a vital role in the travel industry. In fact, online content is a primary source of travel information. Travel businesses connect with consumers through online marketing, social media, travel apps, search engines and booking platforms (Tourism Economics, 2013). Nearly half (46%) of individuals aged 16 to 74 used the Internet for social networking, for example using sites such as Facebook or Twitter (Eurostat, 2015).

In accordance with Internet uses, tourists often search for information on the Internet to gain valuable travel information from other users' experiences and reviews on social media sites (Chung and Koo, 2015). For these reasons, it is convenient to consider the different typologies of information sources, available through the Internet, as influencers in the process of forming a destination's image.

4. METHOD

4.1. Hypothesis formulation

The process of formulating the hypothesis is complex. First we revise each dimension involved in the process of forming a destination's image and their indicators,

as well as the role of UGC in this process. Based on the literature, we then explain the dimensions analysed – information sources; motivation; cognitive, affective and unique images; visit intention; recommendation intention – and their constructs. Finally, we propose a model with their relations.

4.1.1. Sources of information

Tourists consult varied information sources while engaging in the decision process to plan their trip. Information obtained through previous experience also influences the perceived image (Beerli and Martin, 2004b). Seabra et al. (2007) and Lookinside Travel (2012) provide an adequate classification of the different sources of information to consider. Furthermore, different Web platforms are used to disseminate tourism content, as we have explained in the introduction. In the literature consulted on the formation of a destination image, there was no reference made to the empiric relation between information sources and motivations. However, reviewing the scientific corpus of marketing and persuasive communication, it was found that persuasive messages had been used to try to change behaviour (Kotler et al., 2010) and therefore had an impact on motivation (Wood, 1982).

Based on the above, hypothesis 1 has been proposed regarding the influence of information sources on the formation of cognitive, affective and unique images, and the influence of information sources on the motivations to travel to a destination.

Information sources, cognitive, affective and unique images are latent variables. To establish the constructs used in our subsequent analysis, we conduct several multivariate statistical techniques, including exploratory factor analysis and first and second-order confirmatory factor analysis, for each latent variable. We could establish the weight of each type of

information source in the formation of the latent variable “information sources” but we did not analyse the influence of each type of information source type over each type of image.

Hypothesis H1A. Information sources influence the formation of the cognitive image.

Hypothesis H1B. Information sources influence the formation of the affective image.

Hypothesis H1C. Information sources influence the formation of the unique image.

4.1.2. Motivations

Motivations have been defined as psychological factors that influence the cognitive organization of environmental perceptions and resulting tourist behaviour (Beerli and Martin, 2004b). In this sense, the tourism literature clearly shows that when an individual makes the decision to travel, this is influenced by several motives or reasons.

Motivations are a dynamic concept and can vary according to the person or market segment (Kozak, 2002). One way to understand the motivations is Crompton’s push and pull model (1979). The push motivations explain the desire to travel, while pull motivations explain the choice of destination. Crompton (1979) proposed seven socio-psychological push motivations (avoidance, knowing yourself, relaxation, prestige, regression, relationship and social interaction) and two cultural pull motives (novelty and education). Uysal and Jurowski (1994) summarized internal motivations (push) and external (pull) to travel. Internal motivations include the desire to flee, rest, prestige, health and physical care, adventure and social interaction. External motivations are based on the attractiveness of the destination, including tangible resources (beaches, recreational

activities and cultural attractions) and the perceptions and expectations of travellers (novelty, profit expectations and image marketing). In other studies, some authors have referred to purchases as motivations for visiting a destination (Sirakaya et al., 2003). Oh et al. (1995) consider that, in addition to shopping, the image of the destination, food and security are also important factors.

With hypothesis H1D, we want to analyse if information sources can exert some influence over the formation of motivations for visiting a place:

Hypothesis H1D. Information sources influence motivations.

Goossens (2000) has provided an integrated conceptual model that includes motivational and emotional aspects of the tourism destination image and how these relationships influence the decision-making process. Other research has been aimed at analysing how motivation has a direct influence on the affective component of the image (Beerli and Martin, 2004b). Particularly, Beerli and Martin (2004b) evaluated the relationship between the perceived image and motivations of tourists.

Different indicators are used in the literature to assess the construct "motivation". This research draws on the motivations used in the residential tourism survey conducted by UIB (University of the Balearic Islands), the results of which were published by Campo-Martínez et al. (2010). In addition, we add the general motivation that is taken into account in the PITIB 2012 (relax, discover, enjoy, learn, know) and those defined by Lookinside Travel (2012).

Based on the above, we propose hypothesis 2: motivations influence the formation of cognitive, affective and unique images as follows:

Hypothesis H2A. Motivations influence the formation of the cognitive image.

Hypothesis H2B. Motivations influence the formation of the affective image.

Hypothesis H2C. Motivations influence the formation of the unique image.

4.1.3. Cognitive, affective, unique and overall images

Qu et al. (2011) proposed that the destination image is a multi-dimensional construct, influenced by the cognitive, affective and unique images that collectively affect tourist behaviours. Overall, the results showed that destination image plays a mediating role between the three image components of brand association and behavioural intentions. A strong and distinctive destination image should not only be a goal of branding practices in capturing consumers' attention but also a mediator to influence consumer behaviours directly related to the success of the tourist destinations. Therefore, Qu et al. (2011) advise that in the competitive tourism market, tourist destinations must establish a positive and strong brand image, derived from the cognitive, affective and unique image associations, to increase repeat visitors and to attract new tourists to the destination.

Regarding the cognitive image, previous studies (e.g. Beerli and Martin, 2004a; Qu et al., 2011) show no consensus on the attributes used to measure it; each of them use different terminology to describe similar concepts. However, some researchers like Qu et al. (2011) agree on perceived quality as a part of the formation of the cognitive image. In regard to the affective image, there seems to be a consensus on the use of the affective attributes relating to personality and image and the measurement scales considered in different works (Hosany et al., 2007; Murphy et al., 2007). For our

research, the affective attributes have been selected based on the model proposed by Hosany et al. (2007). Finally, with respect to the unique image, the attributes used in this research correspond to those proposed in the PITIB (2012). We have also added other attributes, used in tourist promotions conducted on Majorca, and some of the terms most commonly used on search engines for searches about Majorca, such as “rural farms to stay” (to be checked with Google Global Market Finder from December 2012 - January 2013). We have also considered rural farms, visits to vineyards and wineries and oil mills, promoted by the Balearic Islands Government. There is a large consensus regarding the cognitive image, namely that it has a strong influence on the affective image (Baloglu and McCleary, 1999; Beerli and Martin, 2004a). Qu et al. (2011) note how the unique image also contributes to the formation of the overall image. Note that in this research what is tested is whether the unique image also exerts an influence on the affective image. In response to this, the following assumptions are made for hypothesis 3: affective image is influenced by cognitive and unique images, and the overall image is influenced by cognitive, affective and unique images.

Hypothesis H3A. The cognitive image influences the formation of the affective image.

Hypothesis H3B. The unique image influences the formation of the affective image.

Hypothesis H3C. The cognitive image influences the perceived overall image.

Hypothesis H3D. The affective image influences the formation of the perceived overall image.

Hypothesis H3E. The unique image influences the formation of the perceived overall image.

4.1.4. Intention to visit and recommendation

If individuals positively perceive the overall image of the destination, this influences the intention to visit and recommend it (e.g. Campo-Martínez et al., 2010; Qu et al., 2011), thereby influencing their decision to buy. According to Jalilvand et al. (2015) the construction of a suitable image for a destination will determine its capacity to attract and retain tourists.

Given that the affective component is significant in creating a holistic image of a destination, which in turn positively affects intention to revisit, managers need to be able to transform external experiences related to a destination into an internal emotional effect and should also use communications that emphasize affective impulses of images (Stylos et al., 2016).

Here the aim is to determine if the intention to visit the island influences the intention to recommend it. Based on the above, we formulate the following hypothesis 4: the overall image influences the intention to visit and recommend and the intention to visit influences the intention to recommend.

Hypothesis H4A. The overall image influences the intention to visit.

Hypothesis H4B. The overall image influences the intention to recommend.

Hypothesis H4C. The intention to visit the destination influences the intention to recommend it.

The model proposed is the summary of all the hypotheses proposed. The Figure 1 present the model proposed with the contrast of hypotheses.

4.2. Research. Design, methodology and composition of the sample

An online questionnaire was used to carry

out the research. The sample consisted of actual Internet users. This was important, as varied web platforms as an information source were an important part of our model. For the empirical investigation, the formation of Majorca's image as a destination was used. This is a mature tourist destination, for which the main type of tourism is sun and sand. In recent years, the competent authorities have sought to diversify the tourism offer. To measure the relations between variables, scales of latent variables were created, observing explicit indicators, following the work of previous researchers like Baloglu and McCleary (1999), Gartner (1993), Hosany et al. (2007), Beerli and Martin (2004a) and Qu et al. (2011). To measure the attributes of the image, most of these researchers used the Likert scale and multivariate analysis in their methodologies. Following these methodologies, for this particular research, a multivariate analysis was used for information sources, motivations, cognitive image, affective image, unique image, overall image, visit intention and recommendation intention, and it was measured using a Likert scale (1-5 points).

The resulting sample consisted of 541 valid surveys which were gathered between 19 March and 2 May 2013. The population included international and national tourists as well as residents of Majorca and the sample unit was a population of Internet surfers over 18 years of age. The level of confidence was 95% for a sample error of 4.21%. In this paper, the complete model for the process of destination image formation is presented, but in other studies we would like to analyse several segments using the same field work. For this reason, the sample was divided into international and national tourists as well as residents of Majorca. This division takes into account the findings of Schroeder (1996), who explained that the image that

a host population had of its home area was important, because it could influence the organic image developed among potential visitors through the information provided by host residents to friends, relatives and business associates.

The segments of people considered were those who resided in Majorca (23.8%), in Spain but not Majorca (34.4%) and outside Spain (41.8%). 28.7% did not know any residents. 68.25% had visited Majorca. 13.3% were between 14 and 24 years of age, 61.9% between 25 and 44, 20.9% between 45 and 64, and 3.9% were over 65. 46% were men and 54% were women. In terms of gross family income: 20.9% had an income of €15,000; 27.7% had an income of between €15,001 and €30,000; 21.3% had an income of between €30,001 and €45,000; 13.9% had an income of between €45,001 and €60,000; and the rest (16.3%) had an income of over €60,000.

5. FINDINGS

To verify the hypotheses, an exploratory factor analysis was performed first, which allowed the underlying structure to be identified and the information gathered from the information source, motivation and cognitive, affective and unique image constructs to be condensed. Their dimensionality was analysed by means of an exploratory factor analysis of the data using maximum likelihood extraction with direct oblimin rotation (Hair, Anderson and Tatham, 1999). In accordance with the approach, a first-order confirmatory factor analysis was carried out. In order to ensure convergent validity, those items whose load factors were not significant or less than 0.50 were eliminated (Bagozzi and Baumgartner, 1994) as well as those for which the Lagrange Multiplier Test suggested significant relationships regarding a distinct factor of which they were indicators (Hatcher, 1994).

Before realizing the hypotheses contrast that we propose, we analysed psychometric properties of each instrument of measured. All the variables are latent variables, and in some cases they are a second-ordered latent variables. In this research we are working reflective constructs. Each construct is measured by several indicators. We have following the process defined by Ulaga and Eggert (2005). The first step was the validation of latent variables. A confirmatory factor analysis of the latent variables was performed, the scale of measurement for which was described earlier through EQS 6.1 and by using maximum likelihood estimation. In order to guarantee convergent validity, those items with factor loads that were not significant or below 0.60 (Bagozzi and Yi, 1988), or those for which the Lagrange multiplier test suggested significant relations with a different factor other than the one for which they were indicators were eliminated.

In relation to reliability, we consider that all α de Cronbach were major than 0.7, the value recommended by Churchill (1979). This coefficient assumes that the items are measured without error, it is not plausible, it tends to underestimate reliability (Bollen, 1989). For this reason we also calculated composite reliability index, we consider, too, 0.7 value for all factors as a superior value recommended by Fornell and Larcker (1981). We consider average variance extracted (AVE), that is an indicator calculated to assess the amount of variance captured by factors in relation to variance attributable to measurement error (Fornell and Lacker, 1981).

Finally, in order to confirm the existence of multi-dimensionality, in the different constructs, a rival models strategy was developed (Hair et al., 1998; Anderson and Gerbing, 1988). For this, we compared a second-order model in which various dimensions measured the multi-dimensional construct under consideration, with a first-order model in which all the items weighed on a single factor (Steenkamp and Van Trijp, 1991). The results showed that the second-order model was a much better fit than the first-order model.

TABLE 1. CONFIRMATORY FACTOR ANALYSIS OF THE SCALE SOURCES OF INFORMATION

Latent Variable	Variable measurement	Item	Standardized Lambda	R ²	α Cronbach	FC	AVE
INFORMATION SOURCES	INDUCED (FINFO1)	INF01	Official sources of tourist information	.615	.379	.894	.510
		INF02	Suppliers	.631	.398		
		INF03	Intermediaries	.617	.381		
		INF04	Media specializing in tourism	.704	.496		
		INF05	Media specializing in areas of thematic interest	.705	.498		
	AUTONOMOUS AND INDUCED (ADVERTISING) (FINFO2)	INF06	Books	DELETED			
		INF07	Travel guides	.675	.455		
		INF08	Documentaries	.710	.504		
		INF09	Films and TV series	DELETED			
		INF10	Advertising	.653	.427		
		INF11	Fairs	DELETED			
		INF13	Friends and acquaintances	DELETED			
	OPINION LEADERS (FINFO3)	INF15	Internet	DELETED			
		INF14	Opinion leaders	.894	.800		

	WEBS OF THE DESTINATION, INTERMEDIARIES AND MEDIA (FINFO4)	WEB02	Official tourist information	.671	.450			
		WEB03	Unofficial tourist information	.790	.624			
		WEB04	Intermediaries	.580	.336			
		WEB05	Suppliers	DELETED				
		WEB10	House swapping portals	DELETED				
		WEB11	Tourist accommodation letting	DELETED				
		WEB12	Hotel reservations	DELETED				
		WEB06	Assessments by users	DELETED				
	WEB UGC (FINFO5)	WEB07	Tourism blogs	.770	.593			
		WEB08	General social networks	.649	.421			
		WEB09	Social networks specialized in tourism	.869	.755			
		WEB13	Tourist activities	DELETED				
		WEB14	Sharing photos	DELETED				
		WEB15	Sharing videos	DELETED				
		WEB16	Forums	DELETED				
		WEB17	Traveler hospitality	.752	.566			
		WEB18	Letting private houses	DELETED				
		WEB19	Maps	DELETED				
		GOODNESS OF FIT: $X^2 = 427.387$ (95) $p < (0,001)$; $S-BX^2 = 336.125$; BBNFI = 0,91; BBNNFI = 0,910						

The results like different resulting models, show that de Chi-squared value is significant, although, when the size of the sample is large ($N > 200$), the test tends to reject models which fit the data well, which makes it an unreliable indicator (James, Mulaik and Brett, 1982). The rest of the specific indicators show goodness of fit for all the constructs (BBNFI; BBNNFI; CFI; IFI, AGFI and RMSEA). For example, the construct information sources (Table 1) the indicators show a goodness of fit are BBNFI (0.911), BBNNFI (0.910), CFI (0.929), GFI (0.905), AGFI (0.864), RMSEA (0.080).

For example, the confirmatory factor analysis of the sources of information scale (Table 1) shows how “opinion leaders” is the item with the most weight (Lamda 0.894), followed by “social networks specialized in tourism” (0.869). This means that a new source of information (UGC) has been added to the construct information sources, and fits well. Furthermore, platforms on which the content is user-generated are as influential as traditional sources.

VALIDITY

Factor	Indicator	Load	Valor t	α Cronbach	Reliability Composed	AVE
INFORMATION SOURCES	FINFO1	0.843	14.83	0.8197	0.8723	0.5788
	FINFO2	0.790	13.74			
	FINFO3	0.874	7.05			
	FINFO4	0.787	11.44			
	FINFO5	0.729	8.45			
MOTIVATIONS	MOTI1	0.617	21.15	0.7534	0.8420	0.5757
	MOTI2	0.884	21.14			
	MOTI3	0.631	9.49			
	MOTI4	0.675	14.83			
COGNITIVE IMAGE	IMCOG1	0.781	21.15	0.7553	0.8448	0.5771
	IMCOG2	0.733	19.24			
	IMCOG3	0.704	16.89			
	IMCOG4	0.816	22.28			
UNIQUE IMAGE	IMUNI1	0.874	21.79	0.7951	0.8796	0.7090

	IMUNI2	0.843	18.51			
	IMUNI3	0.898	16.79			
AFFECTIVE IMAGE	IMAFEC1	0.781	30.34	0.8617	0.9062	0.7073
	IMAFEC2	0.733	34.14			
	IMAFEC3	0.704	37.63			
	IMAFEC4	0.816	38.80			
IMAGE *****	N.A	N.A	N.A	N.A	N.A	N.A
RECOMENDATION *****	N.A	N.A	N.A	N.A	N.A	N.A
VISIT INTENTION*****	N.A	N.A	N.A	N.A	N.A	N.A

*** p< .01; ** p< .05; * p< .10 N/A = Not Applicable ***** These variables were measured by a single item

The model (Figure 1) was estimated using SmartPLS2.0 (Ringle et al., 2005), and the significance of the parameters was established using a bootstrap re-sampling procedure with 541 sub-samples, equal to the size of the original sample. We provide the results of the structural model in Table 4. To guarantee convergent validity, we eliminated indicators whose factor loadings did not have a significance of at least 0.6. The resulting model indicated no reliability problems (Table 2) according to any of the well-establish criteria: Cronbach's alpha, ($\alpha > 0.7$, Nunnally and Bernstein, 1994); compound reliability (> 0.6 , Bagozzi and Yi, 1988; Fornell and Larcker, 1981) and average variance extracted (> 0.5 , Fornell and Larcker, 1981). To evaluate discriminant validity (Table 3), we considered the only criterion that is applicable in a PLS estimation, namely, the one that indicates the average variance extracted for each factor, which must be greater than the square of the correlation between each pair of factors (Fornell and Larcker, 1981).

TABLE 3. INSTRUMENT OF MEASUREMENT FOR DISCRIMINANT VALIDITY

	I SOURCES	AFFECTIVE I	COGNITIVE I	UNIQUE I	IIMAGE	MOTIVATIONS	VISIT I	RECOMMENDATION
INFORMATION SOURCES	0,7140							
AFFECTIVE IMAGE	0,3655	0,7660						
COGNITIVE IMAGE	0,3131	0,7359	0,7170					
UNIQUE IMAGE	0,3081	0,5040	0,5967	0,7960				
IMAGE	0,2162	0,5747	0,4869	0,3113	N.A			
MOTIVATIONS	0,4041	0,5917	0,5242	0,4233	0,4292	0,7190		
VISIT INTENTION	0,2325	0,4482	0,3743	0,2504	0,5237	0,4145	N.A	
RECOMMENDATION	0,2186	0,5595	0,4720	0,3527	0,6560	0,4885	0,4996	N.A

Notes: Below the diagonal are the estimated correlations between factors. On the diagonal are the square roots of the average variances extracted. N.A.: Not Applicable

To assess the predictive capacity of the structural model, the criteria proposed by Falk and Miller (1992) were followed: the R-squared of each dependent construct had to be greater than 0.1. In Table 2, the corresponding values are shown and the relationships of the hypotheses can be observed. The results obtained indicate, first, how the direct effects more intense are given by the importance that present the cognitive image over the formations of the affective image $\beta = 0,554$; $p < 0,01$; hypothesis H3A). Previous research from Baloglu and McCleary (1999) presents similar results. In this sense it is important first to know the destination, their characteristics and functional attributes before to develop some feeling to the destination.

Second, overall image that a person has over a tourist destination exert an influence over the intention to visit it ($\beta = 0,524$; $p < 0,01$, hypothesis H4A). This result coincides with the

research of Qu et al. (2011) who shows the importance that the overall image perceived by an individual has over his behaviour.

FIGURE 1. HYPOTHESIS' CONTRAST OF THE MODEL OF THE FORMATION OF THE IMAGE OF A TOURIST DESTINATION.

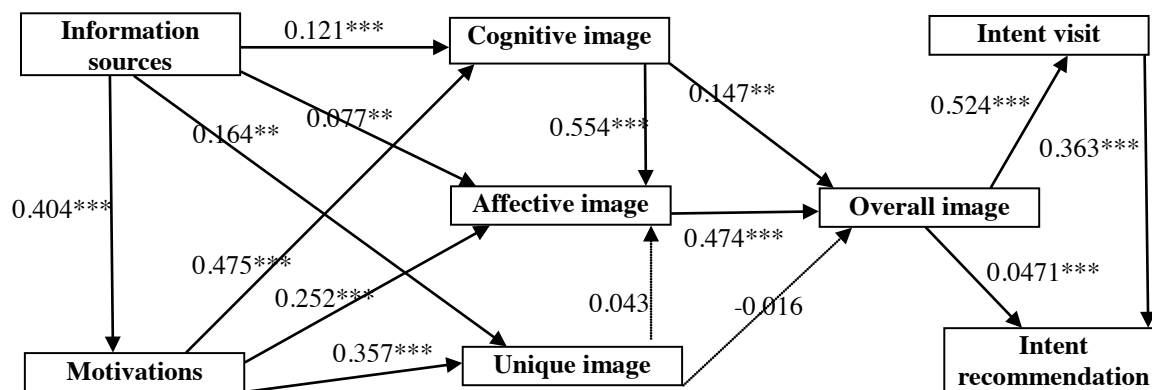


TABLE 4. CONTRAST OF HYPOTHESES

Hypotheses	β standardized	Valor t Bootstrap
H1A I. SOURCES \Rightarrow COGNITIVE I.	0.121***	2.794
H1B I. SOURCES. \Rightarrow AFFECTIVE I.	0.077**	2.376
H1C I. SOURCES. \Rightarrow UNIQUE I.	0.164***	3.849
H1D I. SOURCES \Rightarrow MOTIVATIONS	0.404***	10.253
H2A MOTIVATIONS. \Rightarrow COGNITIVE I.	0.475***	12.338
H2B MOTIVATIONS \Rightarrow AFFECTIVE I.	0.252***	6.527
H2C MOTIVATIONS \Rightarrow UNIQUE I.	0.357***	8.426
H3A COGNITIVE I. \Rightarrow AFFECTIVE I.	0.554***	14.680
H3B UNIQUE I. \Rightarrow AFFECTIVE I.	0.043	1.221
H3C COGNITIVE I. \Rightarrow OVERALL I.	0.147**	2.225
H3D AFFECTIVE I. \Rightarrow OVERALL I.	0.474***	9.015
H3E UNIQUE I. \Rightarrow OVERALL I.	-0.016	-0.320
H4A OVERALL I. \Rightarrow INTENT VISIT	0.524***	14.748
H4B OVERALL I. \Rightarrow I. RECOMMENDATION	0.471***	11.514
H4C I. VISIT \Rightarrow I. RECOMMENDATION	0.363***	7.850

*** p< .01; ** p< .05; * p< .10
 R^2 Motivation= 0.163, R^2 Unique image = 0.202, R^2 Affective image = 0.607, R^2 Cognitive image= 0.287
 R^2 Overall image= 0.339, R^2 I. Recommendation = 0.521, R^2 Intent visit= 0.274

Third, it is confirmed the exert of motivations over the cognitive image ($\beta = 0,475$; $p < 0,01$, hypothesis H2A). Likewise, we can confirm that affective image exerts an influence over the overall image ($\beta = 0,474$; $p < 0,01$, hypothesis H3D). Beerli and Martin (2004) treated motivations as a part of personal factors, and as a part of those, they have a great influence over the formation of cognitive image of the tourist destination. So, motivations that incise on a realize a journey, influence the individual perception about the tourism destination, concretely, the way that functional attributes and the quality of destination is perceived like explain Baloglu and McCleary (1999).

Fourth, and with similar values, the results manifest that overall image exert the intention of recommendation ($\beta = 0,471$; $p < 0,01$ hypothesis H4B). In this case, it appears again how the image perception of a tourist destination influences the development of the behaviour related to visit a place, like Keller et al. (2011) demonstrated.

On the next level, it is confirmed that information sources that tourist consult exert an influence over the motivations for visiting the place ($\beta = 0,404$; $p < 0,01$ hypothesis H1D). This relation has not been contemplated in the models revised related to the tourist destination image. But some works realized in the marketing and communication spheres recognise the existence of a positive relation between information sources and motivations for developing a concrete behaviour (Kotler et al., 2010).

Later the intention to visit a place influences the intention to recommend it ($\beta = 0,363$; $p < 0,01$, hypothesis H4C). So, we can observe that the two dimensions that conform loyalty are interrelated. When a tourist decides to visit a place has the ability to influence other persons recommending it. With this result we can completed the model of Zhang et al. (2014). As a novelty with this result we can prove that behavioural loyalty (visit) can influence attitudinal loyalty (recommend).

Following on, motivations influence the unique image perceived by the tourist ($\beta = 0,357$; $p < 0,01$, hypothesis H2C) and the affective image ($\beta = 0,252$; $p < 0,01$, hypothesis H2B). Like motivations exert an influence over cognitive image, as we can demonstrate with H2A, they have an inferior influence over the unique image. So DMO, can base its communication strategy offering information about functional characteristics, unique characteristics and

psychological attributes of the destination. For example, if there are tourist information about a famous artist of the region could be a motivation visit the region for knowing the heritage in general and of this artist concretely, taking in account the feelings associated.

It should be noted that although the weight coefficients presented by Beta within the model are relatively low, the H1C, H1A and H1B hypotheses are confirmed. So, it shows how the sources of information have a direct effect on the unique image ($\beta = 0.164$; $p < 0.01$, hypothesis, H1C), cognitive image ($\beta = 0.121$; $p < 0.01$, hypothesis H1A) and affective image ($\beta = 0.077$; $p < 0.05$, hypothesis H1B) that the tourist perceives about the destination.

Finally, we demonstrate that cognitive image exert an influence on the overall image of the destination, but with a low Beta coefficient ($\beta = 0,147$; $p < 0,05$, hypothesis H3C). These results are consistent with those obtained by Qu et al. (2011).

On the other hand, and contrary to the expectations, the results do not confirm the relationship between the unique image and affective image ($p < 0.01$, $\beta = 0.043$, hypothesis H3B) and the unique image and overall image ($\beta = -0.016$; $p < 0.01$, hypothesis H3E.) Thus, H3B and H3E hypotheses are rejected. In the model proposed in this research, the unique image is treated as a special characteristics similar to cognitive image but exclusively associated with the destination. Unique attributes maybe can confuse it with functional attributes. Or it is possible that being Majorca a sun-and-sand destination, with multiple competitors, the unique image was not consolidated as the unique image of a Native American/ Old West cultures in USA proposed in the research of Qu et al. (2011).

4. CONCLUSIONS AND DISCUSSION

Social media can influence consumer behaviour because all kinds of websites are consulted as sources of information in the decision-making process of planning a trip. All information sources carry a high degree of weight in the process of forming an image of a tourist destination. Induced information sources carry greater weight, i.e. those belonging to the DMO, suppliers and intermediaries. Therefore it is advisable to spread content about the destination not only on official sites but also through suppliers and intermediaries, including their websites, with images that the DMO really wants to project and in accordance with the marketing plan. To achieve this, it is convenient to disseminate content and images owned by DMO using Creative Commons or Copy Left licenses.

In summary, it is important to keep in mind the main ways in which someone decides to visit or recommend a destination. All information sources, including Web 2.0 and UGC, influence motivations. Motivations exert an influence on knowing about the territory. For the first time, we have demonstrated this relationship, and it is stronger than the relation between information sources and cognitive, affective and unique images. Knowing about a place exerts an influence on the feelings about this place. The feelings about a place, it is to say the affective image, are those that exert the most influence over the overall image. The overall image very positively influences consumer behaviour, the intention to visit and recommend, and, as a result, loyalty to the destination. Once again, for the first time, we have been able to demonstrate that the intention to visit influences the intention to recommend.

We recommend that DMO implement viral marketing actions, inviting those who have the intention of visiting the destination

to convince a companion to travel with them. To attract visitors, we recommend maximizing cognitive and unique images and using suppliers' and intermediaries' websites as opinion leaders. It is also advised to emphasize affective attributes and motivations associated with the best-rated variables. In summary, first, knowledge has to be spread about the place, and then the emotions associated with motivations for visiting it.

In terms of further research, it would be interesting to analyse what kind of image and content are shared by a destination through intermediary and supplier websites and social media and how this can modify or enrich the image projected by the DMO.

The results of our research are similar to those of previous research. Cognitive and affective images influence overall image, and overall image influences the intention to visit a destination and the intention to recommend it, as proven by Qu et al. (2011).

Our results concur with those of Beerli and Martin (2004a), proving that information sources and motivations influence the formation of the cognitive, affective and unique image, and the cognitive image influences the affective image. Just as Baloglu and McCleary (1999) explained, perceptual/cognitive evaluations significantly influence affective and overall image evaluations.

For the first time we have proposed and can demonstrate that information sources influence motivations, and the intention to visit a destination influences the intention to recommend it. It would be interesting to carry out similar studies to bear out these findings.

5. Limitations and Future Research

We cannot demonstrate that the unique image influences overall image, as proven

by Qu et al. (2011). We think it could be interesting for future research to revise the scale items for the unique image's latent variables, that is to say, those characteristics that really make a destination different and which can comprise its unique image.

As the Internet evolves quickly, we propose that future research revise the scale of information sources as a latent variable, concretely, those items about Internet and web platforms. For example, mobile apps and new services such as Instagram, Pinterest, Periscope or game apps like Pokemon Go Pro could be included.

Finally, we propose a complete model of the process of forming the image of a tourist destination, based on preceding models. We suggest that future research check the validity of the entire model proposed in this article.

6. Managerial Implications

DMO has to observe the evolution of uses of Internet applications by users and the implications in tourism. Each new app can be a new tourism information source and can influence the perception of the destination. So, the DMO would have to integrate UGC in their marketing strategies.

Acknowledgements

This work has been funded by the Ministry of Economy and Competitiveness (Spain), Research Project with reference: ECO2014-59688-R, Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad, Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016.

BIBLIOGRAPHY

Anderson, J. C. & Gerbing, D. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach, *Psychological bulletin*, 103(3), 411.

Bagozzi, R. Y. B. & Baumgartner, P. J. H. (1994). The evaluation of structural equation models and hypothesis testing. *Principles of Marketing Research*, 386-419.

Bagozzi, R. P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16 (1), 74-94.

Baloglu, S. & McCleary, K. (1999). A model of destination image formation, *Annals of Tourism Research* 26, 868-897.

Beerli, A. & Martin, J. D. (2004a). Factors influencing destination image. *Annals of tourism research*, 31(2), 657-681.

Beerli, A., & Martín, J. D. (2004b). Tourists' characteristics and the perceived image of tourist destinations: a quantitative analysis—a case study of Lanzarote, Spain, *Tourism management*, 25(5), 623-636.

Bollen Kenneth, A. (1989). *Structural equations with latent variables*. Ed. John Wiley & Sons: New York.

Buhalis, D. (2003). *E-tourism information technology for strategic tourism management*. London: Prentice Hall.

Buhalis, D. & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of e-Tourism research, *Tourism Management* 29 (4), 609-623.

Campo-Martínez, S., Garau-Vadell, J. B. & Martínez-Ruiz, M. P. (2010). Factors influencing repeat visits to a destination: The influence of group composition, *Tourism Management*, 31(6), 862-870.

Crompton, J. (1979). Motivations for pleasure vacation, *Annals of Tourism Research*, 6(4), 408-424.

Chung, N. & Koo, C., 2015. The use of social media in travel information search, *Telematics Inform*, 32 (2), 215–229.

- Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, 64-73.
- Echtner, C. M. & Ritchie, J. R. B. (2003). The Meaning and Measurement of Destination Image, *Journal of Tourism Studies*, 14 (1), 37-48.
- Eurostat (2015). Information society statistics - households and individuals, available at <http://ec.europa.eu> (accessed 27th January 2016).
- Falk, R. F. & Miller, N. B. (1992). A primer for soft modeling. University of Akron Press.
- Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error, *Journal of marketing research*, 39-50.
- Gartner, W. C. (1993). Image formation process, *Journal of Travel and Tourism Marketing*, 2(2/3), 191-215.
- Goossens, C. (2000). Tourism information and pleasure motivation, *Annals of tourism research*, 27(2), 301-321.
- Hair, J. F., Anderson, R. E. & Tatham, R. Y. B. (1999). *Análisis multivariante*. Quinta edición. Madrid: Prentice Hall.
- Hatcher, L. (1994). *A step-by-step approach to using the SAS system for factor analysis and structural equation modeling*, Cary NC: SAS Institute Inc.
- Hosany, S., Ekinci, Y. & Uysal, M. (2007). Destination Image and Destination Personality, *International Journal of Culture Tourism and Leisure Research*, 1(1), 62-81.
- Jalilvand, M. R., Samiei, N., Dini, B. & Manzari, P. Y. (2012). Examining the structural relationships of electronic word of mouth, destination image, tourist attitude toward destination and travel intention: An integrated approach, *Journal of Destination Marketing & Management*, 1(1), 134-143.
- James, L. R., Mulaik, S. A. & Brett, J. M. (1982). *Causal analysis: Assumptions, models, and data*. Beverly Hills, CA: Sage.
- Keller, K. L., Parameswaran, M. G. & Jacob, I. (2011). *Strategic brand management: Building, measuring, and managing brand equity*. India: Pearson Education.
- Kotler, P., Kartajaya, H. & Setiawan, I. (2010). *Marketing 3.0: From products to customers to the human spirit*. Hoboken, NJ: Wiley.
- Kozak, M. (2002). Comparative analysis of tourist motivations by nationality and destinations, *Tourism Management*, 23(3), 221-232.
- Lookinside Travel (2012). *Estudio sobre el viajero español 2012*. Google. Exceltur. Ministerio de Industria, Comercio y Turismo, available at: www.lookinside.travel/informeejecutivo2011 (accessed 28 February 2013).
- Llodrà-Riera, I.; Martínez-Ruiz, M.P.; Jiménez-Zarco, A.I. & Izquierdo-Yusta, A. (2015). A multidimensional analysis of the information sources construct and its relevance for destination image formation, *Tourism Management*, 48:319-329. DOI: 10.1016/j.tourman.2014.11.012
- Mackay, K.Y. & Vogt, C. (2012). Information Technology in everyday and vacation context, *Annals of Tourism Research*, 39 (3), 1380-1401.
- Mansfeld, Y. (1992). From motivation to actual travel, *Annals of Tourism Research*, 19, 399-419.
- Murphy, L., Moscardo, G. & Benckendorff, P. (2007). Using brand personality to differentiate regional tourism destinations, *Journal of Travel Research*, 46, 5-14.
- Oh, H. C., Uysal, M. & Weaver, P. A. (1995). Product bundles and market segments based on travel motivations: A canonical correlation approach, *International Journal of Hospitality Management*, 14(2), 123-137.
- Papathanassis, A. & Knolle, F. (2011). Exploring the adoption and processing of online holiday reviews: A grounded theory approach, *Tourism Management*, 32, 215-224

- PITIB (2012). *Plan Integral de Turismo de las Islas Baleares*. Conselleria de Turisme. Govern de les Illes Balears.
- Qu, H., Kim, L. H. & Im, H. H. (2011). A model of destination branding: Integrating the concepts of the branding and destination image, *Tourism Management*, 32 No 3, 465-476.
- Ringle, C. M., Wende, S. & Will, A. (2005). *SmartPLS 2.0.*, Hamburg., available at: www.smartpls.de (accessed 20 July 2013).
- Schroeder, T. (1996). The relationship of residents' image of their state as a tourist destination and their support for tourism, *Journal of Travel Research*, 34(4), 71-73.
- Seabra, C., Abrantes, J. L. & Lages, L. F. (2007). The impact of using non-media information sources on future use of mass media information sources: the mediating role of expectations fulfillments, *Tourism Management*, 28, 1541-1554.
- Sirakaya, E., Uysal, M. & Yoshioka, C. F. (2003). Segmenting the Japanese tour market to Turkey, *Journal of Travel Research*, 41(3), 293-304.
- Stylos, N., Vassiliadis, C. A., Bellou, V. & Andronikidis, A. (2016). Destination images, holistic images and personal normative beliefs: Predictors of intention to revisit a destination, *Tourism Management*, 53, 40-60.
- Tourism Economics. (2013). *The Impact of Online Content on European Tourism*. Oxford: Tourism Economics.
- Ulaga, W. & Eggert, A. (2005). Relationship value in business markets: the construct and its dimensions, *Journal of Business-to-business Marketing*, 12(1), 73-99.
- Uysal, M. & Jurowski, C. (1994). Testing the push and pull factors. *Annals of Tourism Research*, 21(4), 844-846.
- Wood, W. (1982). Retrieval of attitude-relevant information from memory: Effects on susceptibility to persuasion and on intrinsic motivation, *Journal of Personality and Social Psychology*, 42(5), 798.
- Zhang, H., Fu, X., Cai, L. A. & Lu, L. (2014). Destination image and tourist loyalty: A meta-analysis, *Tourism Management*, 40, 213-223.
- Zins, A. H. (2009). Deconstructing travel decision making and information search activities, *Information and Communication Technologies in Tourism*, 2009, 467-479

Influence of service environment on client loyalty in luxury hotels: A test of the cognition-emotion approach

Abstract

Extending the Mehrabian-Russell model (1974), this study proposed a conceptual model to examine the impact of service environment on emotional responses, perceived service quality, and loyalty. As such, the mediator role of optimal stimulation level is taken into account. The proposed model was tested into the context of luxury hotels, which is one of the most important hotel segments in France. The data were collected from 354 individuals who were seen in different places in Nice and who have recently stayed in four or five stars hotels. The hypotheses were tested using structural equation modeling. The results showed that customers' perception of service environment increases customers' evaluation of service quality and positively affects the feeling of pleasure and arousal, which lead to loyalty. In addition, the results indicated that perceived service quality had a significant effect on pleasure and not on arousal. Finally, the moderating role of (OSL) was supported only for the relationship between pleasure and loyalty. The managerial implications, limitations, and suggestions for future research are discussed in the latter part of this study.

Key words: Service environment, Overall perceived service quality, Emotions, Loyalty, Optimal stimulation level.

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Introduction

In their quest for sustainable competitive advantages, luxury hotels try to create their own identity by preserving a prestigious and differentiated image that can contribute to customer loyalty. Service place management seems to be one of the key levers to meet this challenge. The idea is to configure the service setting by using sensory factors such as music, colors, light, smells, in a way to charm the consumer's senses and facilitate immersion in the consumption experience.

Mehrabian–Russell's (1974) environmental psychology model is widely applied in research into environmental marketing. This model claims that environmental stimuli could affect customers' emotional responses (pleasure, arousal and dominance) which, in turn, elicit approach or avoidance behavior toward the environment. Pleasure refers to an emotional state of well-being, joy and satisfaction, while arousal corresponds to the degree of awakening and activation. Dominance, denote the feeling of power and control. Many researchers have, however, proposed to exclude dominance dimension, confirming that pleasure and arousal can represent all emotional responses in a large number of environments (Donovan and Rossiter 1982; Matilla and Wirtz 2001; Walsh et al. 2011).

Despite the importance of the Mehrabian-Russell model, its affective view provides only a partial explanation of the relationship between consumption settings and consumer behavior (Liu and Jang 2009). Environment cues are also likely to influence personal belief and judgment about products and services in this environment, says Bitner (1992). A comfortable environment of a hotel could positively influence customers' perception of service quality as well as overall evaluations of experience. Therefore, in order to propose an enriched view of the space-customer relationship, it is necessary to extend the M-R model and examine the effect of environmental cues on behavioral responses through emotions and cognition. However, behavioral responses in this study don't present actual behaviors of customers, but rather their intentions to manifest a future behavior of loyalty to the provider (Jang and Namkung 2009). Otherwise, overall perceived service quality, which can be seen as the result of a global evaluation, is considered as representing cognitive response. Since many studies assume that customer's perception of service quality may lead to behavioral reactions or loyalty (N'Goala 1993; Zeithaml, Berry and Parasuraman 1996; Wakefield and Blodgett 1999), the concept

of overall perceived service quality has been overlooked in considering the relationship between environmental cues and loyalty.

Finally, research on sensorial marketing has paid a little attention to luxury hotels, the sector that is driving growth in France hotel market. As luxury hotels professionals invest a great deal in space management, it seems pertinent to investigate the benefits of this practice and its impact on customer responses in this context.

The purpose of this study is therefore to answer the following question: to what extent is perceived service environment likely to influence customer loyalty? To do this, we empirically test a conceptual model of the environmental cues effect on loyalty through overall perceived service quality and emotions, and explore the relationships between these internal responses.

Literature review

Service environment

Kotler (1973) claimed that customers perceive the store environment through a combination of different dimensions: visual, olfactory, tactile, and auditory. Baker (1987) identified three categories of environmental factors: design that corresponds to the visual dimension of the external or internal environment; ambience which includes the other sensory factors (olfactory factor, auditory factor and tactile factor); and social factors that include number, appearance and behavior of people in the place. Bitner (1992) proposed another typology according to what service environment consists of three dimensions: a) ambient conditions; b) Spatial layout and functionality that refer to the way in which equipment and furniture are arranged within an environment, and size and shape of these elements, as well as their ability to facilitate performance; and c) signs, symbols and artifacts that communicate the place to its users (Bitner, 1992). Wakefield and Blodgett (1996) consider cleanliness of a service place as a major dimension of service environment. Turley and Milliman (2000) also pointed out that the human elements (e.g., the appearance of employees and the interaction between consumers) and the exterior of the store (e.g., architectural style and parking area) should be viewed as principal environmental dimensions. Brunner-Sperdin, Peters and Strobl (2012) highlight the importance of jointly considering the physical and social dimensions of environment to capture the emotional responses of clients. For these authors, social dimension includes appearance, skills and behaviors of staff. The literature seems to support these propositions (Baker 1986; Baker, Levy and Grewal 1992; Keillor et al., 2004). Therefore, in our research,

we consider that service environment includes the physical components (ambient factors, interior and exterior design, etc.) and human components that may include static elements such as number, appearance and behaviors of consumers and employees. This may be explained by the fact that we are studying the hotel environment, so we should consider the quality of all the existing elements in this environment of what employees and customers constitutes a significant part. Thus, we adopt a typology widely used in marketing research, it is the typology proposed by Baker (1987) that identified the dimension of environment as three composites: design, ambience and social factors

Customer loyalty

Three traditional approaches are generally used to define customer loyalty: behavioral, attitudinal and composite. The behavioral approach uses indicators such as purchase frequency or purchase sequence to define loyalty. According to the attitudinal approach, loyalty is manifested by preferences, favorable attitudes and repurchases intention. The composite approach includes a combination of two behavioral and attitudinal dimensions (Plichon and Litchlé 2008). For some authors, the relational approach gives a broader view of loyalty without being limited to a succession of discrete transactions (Moulin 1998). Loyalty, from this perspective, is the deep and continuous relationship established between consumer and provider; it's manifested in multiple forms (cooperation, word-of-mouth, etc.) (N'Goala 2003). Moreover, Oliver (1999) distinguishes four sequential phases in the process of loyalty: cognitive phase (based on beliefs towards brand), affective phase (attitude towards brand), conative phase (behavior intention) and behavioral phase (product repurchase). In the service sector, loyalty has been widely defined according to its conative dimension (Jani and Han, 2014). Thus, customer loyalty is often apprehended through the intention to revisit for example the same destination, to return to the same hotel or restaurant, to recommend them to others (Demoulin 2011) as well as to spread word-of-mouth (Han and Ryu 2009). Therefore, we are adopting this fairly recognized perspective in tourism marketing to conceptualize loyalty in the luxury hotel industry.

Research hypotheses

Service Environment and Emotional Responses

According to the M-R model, when clients are exposed to environmental stimuli, they experience emotional reactions. Ryu and Jang (2008), in a study in upscale restaurants, found that environmental factors such as aesthetics, ambience, and social factors affect customers' pleasure feeling; while

ambience and social factors increase the level of arousal. In addition, Wakefield and Blodgett (1994) validated the role of baseball field environment in explaining audience' arousal during the game. Hyun and Kang (2014) claimed that arousal feeling can be evoked as a result of a favorable perception of the environment. Lin (2010)^a concludes that positive arousal occurs when the client is interested in the hotel room ambience that he perceives to be similar to his expectations. Similarly, Mattila and Wirtz (2001), Walsh et al., (2011) have confirmed the influence of music and scent in store on consumer emotions (pleasure and arousal). Based on these discussions, the following hypotheses were proposed:

H1a: Service environment has a direct positive influence on customer pleasure.

H1b: Service environment has a direct positive influence on customer arousal.

Emotional responses and loyalty

Emotions have been shown to be an important determinant of behavioral intention or loyalty in many studies. It was indicated that pleasure increases customers' return intention to restaurant (Ryu and Jang 2008; Kim and Moon 2009; Hyun and Kang 2014). Others pointed out that customer pleasure and arousal feelings both influence purchase intention, word-of-mouth and loyalty (Walsh et al., 2011). Jang and Namkung (2009), for their part, confirm the existence of a relationship between positive and negative emotions, on the one hand, and future behavioral intention towards this restaurant on the other. Similar results were obtained in a study conducted in hospitality industry by Jani and Han (2015). Thus, the following hypothesis is proposed:

H2a: Pleasure has a direct positive influence on loyalty.

H2b: Arousal has a direct positive influence on fidelity

Service environment and overall perceived service quality

Given the intangibility of service and the complexity of its evaluation, consumers rely on many indices existing in the service environment to estimate performance, before, during and after consumption (Huang, Chou and Wu 2016). Perceived service quality, which represents a global judgment based upon perception of attributes quality (Kim and Moon 2009), could be viewed as an outcome of client exposure to environmental stimuli (Bitner 1992; Bagozzi et al. 1999). Hotel cleanliness, for example, helps customer to assess service quality (Barber and Scarcelli 2010). In a study realized within the field of sports activities,

Hightower, Brady and Baker (2002) found that environment perception is a predictor of overall perceived service quality. Kim and Moon (2009) empirically confirm this result in restaurant sector. Other studies have yielded similar results in different contexts (Temessek 2008; Hooper, Coughlan and Mullen 2013). Therefore, we hypothesize:

H3: Service environment has a direct positive influence on overall perceived service quality.

Overall perceived service quality and loyalty

The relationship between perceived service quality and loyalty has been the subject of much research on marketing (Zeithaml, Berry and Parasuraman, 1996; Wakefield and Blodgett 1999). It is based on the assumption that service quality is cognitively assessed and reflects a favorable attitude inducing behavioral intention in client (Cronin and Taylor 1992; Zeithaml 1988). But this relationship is far from obvious. The question of its nature and its significance remains interesting to discuss, and even more in the hotel context. Indeed, based on the Bitner's (1990) model, it is the cognitive responses which determine the customer behavior. Various research on client loyalty shows that a favorable perception of service quality makes revisiting more likely (Baker and Crompton 2000; Bigne, Sanchez and Sanchez 2001). Similarly, according to a survey of Korean consumers, perceived service quality is one of the three best determinants of loyalty: the other two determinants are brand image and switching costs (Kim, Park and Jeong 2004). In addition, in a qualitative survey, carried out by Mason et al. (2006), hotel guests were asked "what is hotel loyalty for you?" Quality of service was among the most mentioned factors in the responses. It also appears that research in business environment shows a greater interest to the question of predicting loyalty or similar variables by perceived service quality (Ha and Jang 2009; Namkung and Jang 2009). Therefore, the following hypotheses are offered:

H4: Overall perceived service quality has a direct positive influence on customer loyalty.

Overall perceived service quality and emotions

There are two schools of thought regarding the relationship between emotion and cognition. The first is that emotion precedes cognition during the evaluation process (Zajonc and Markus 1982; Pham et al. 2001). The second argues that emotion is derived by cognition (Lazarus, 1999). Since our structural model does not allow us to test a two-way relationship between overall perceived service quality (which represents a cognitive evaluation) and emotional responses, we have to choose one of two approaches to be tested in our study.

Based on these schools, Chebat and Michon (2003) tested two competing models combining emotions and cognition. They found that cognition-emotion model is the most robust and appropriate in sensory marketing research. They also conclude that ambient scent positively influences perceptions of shopping environment and product quality which, in turn, could influence arousal and pleasure, respectively. The authors confirm, therefore, that cognition mediates the effects of environmental stimulus (ambient scent) on emotions. Depending on this result and as well as on Oliver's framework (1999) according to what cognitive loyalty leads to affective loyalty, cognition-emotion model could be tested in our study. Thus, causal effect of overall perceived service quality on emotions is postulated. This proposition has been proven several times in environmental literature. Kim and Moon (2009) emphasized that servicescape positively influences perceived service quality which produces a pleasure-feeling. Jang and Namkung (2009) also affirm that positive emotion can be generated by service quality during a meal in restaurant. Lee and al. (2010) showed that service value and service quality, as cognitive components, have a positive impact on the emotions in green hotel. Similar results were obtained by Walsh et al. (2011) then Hyun and Kang (2014). Accordingly, we hypothesize as follows:

H5a: Overall perceived service quality has a positive influence on pleasure.

H5b: Overall perceived service quality has a positive influence on arousal.

Service environment and loyalty

Services marketing literature demonstrates the important role that did environment in determining behavioral intention (Wakefield and Blodgett 1994; Hightower, Brady and Baker 2002; Namkung and Jang 2009). Belk (1975) suggests that environment, as a situational variable, can largely determine consumer preferences for different types of products or services. Kim and Moon (2009) advocate that environmental stimuli positively influence pleasure and perceived service quality which, in turn, increase behavioral intention. In the same sense, Walsh et al. (2011) conclude that pleasure mediates the relationship between ambient stimuli (music and scents) and loyalty to the store, while arousal does not. Hyun and Kang (2014), nevertheless, confirm the mediating role of arousal in the relationship between environment and behavioral intention. Jani and Han (2015) also postulate that hotel ambience indirectly influences customer loyalty through positive and negative emotions. Based on this reasoning, we propose to examine the presence of a causal relationship between service

environment and customer loyalty in luxury hotels. It also seemed important to test the simultaneous mediation of overall perceived service quality and emotions, since this analysis is rarely addressed in the literature. To this end, it's hypothesized that:

H6: Service environment has a direct positive influence on loyalty.

H7: Service environment has an indirect positive influence on loyalty through overall perceived service quality and emotions.

Moderating effect of optimal stimulation level (OSL)

Falcy (1993) defines optimal stimulation level as "a point of stimulation to which every individual aspires will try, through his behavior, to maintain or restore". Mehrabian and Russell (1974) suggest that the amount of stimulation people prefer depends upon their optimal stimulation level. Thus, consumers with higher optimal stimulation levels prefer environments with greater stimulus intensity and variety (Mehta, Sharma and Swami 2013). Research on how personality traits, such as optimal stimulation level, may influence consumer responses yet is scant. Thus the moderating effect of this situational variable seems to be an important proposition in hotel literature. Several empirical studies tested the moderating role of OSL in the effete of music (Rieunier 2000), scent (Maille 2003), color (Rouillet 2003), or advertisement color (Lichtlé 1998) on consumer reactions. Based on these reflections, we also consider OSL as a personality trait, particular to each individual and linked to the tendency of exploratory behavior or disloyalty. It is therefore possible to propose that loyalty intention varies according to optimal stimulation level. Hence, the following hypotheses are forwarded:

H8a: A consumer' optimal stimulation level moderates the effect of service environment and loyalty.

H8b: A consumer' optimal stimulation level moderates the effect of overall perceived service quality on loyalty.

H8c: A consumer' optimal stimulation level moderates the effect of arousal on loyalty

H8d. A consumer' optimal stimulation level moderates the effect of pleasure on loyalty

The conceptual model integrating all the above hypotheses is presented in Figure 1 (see appendixes A).

Research methodology

Measures

To measure the constructs in the conceptual model, scales were adopted from previous studies with slight modifications to ensure the

appropriateness in the study context. An initial pool of 48 items was employed to capture the latent constructs. Twenty one items were developed to measure the three dimensions of service environment (adapted from Hightower, Brady and Baker, 2002). A five-point semantic differential was used to measure six items of them, whereas a five-point Likert scale measuring the degree of agreement with the other items. Overall perceived service quality is measured by 5 items, adopted from Cronin and Tylor (1992) and Hightower, Brady and Baker (2000), corresponding to the overall impression of service. These five items were measured on a five-point Likert scale anchored from one (strongly disagree) to five (strongly agree). Emotions were measured using a five-point differential semantic scale with 12 items suggested by Plichon (1999): six items for pleasure and six items for arousal. Customer loyalty, apprehended in our research through its conative dimension (behavioral intention), was measured using a five-point Likert scale with five items developed by Zeithaml, Berry and Parasuraman (1996). Their scale is composed at the beginning of 13 items classified into five dimensions whose loyalty is a dimension grouping five items. Finally, we measured optimal stimulation level using (CSI II) scaled proposed by Steenkamp and Baumgartner (1995). These items were measured on a five-point Likert scale.

Data collection

Prior to conducting the final survey, the draft questionnaire was examined and refined by two experts whose the comments helped us to design the final questionnaire. To assess question wording and test item validity and reliability, a pilot test was administered to a convenience sample composed of 60 French and foreign people. After this pretest, questions that were ambiguous were deleted from the original version and some modifications were realized to some questions. The final questionnaire survey was conducted in many tourist areas of the city of Nice. The data were collected using the judgment method, a particular form of convenience. Thus, every respondent was asked if he was over 18 and had spent at least three nights in a four or five-star hotel in the PACA¹ region recently. Those who met these criteria were asked to complete the questionnaire. After deleting incomplete responses, 354 surveys were used for final analysis. The descriptive analysis indicates 51,14 to be female, 41.2% were under the age of 40. All socio-
1 PACA: Provence-Alpes-Côte d'Azur is a region of South-East France.

professional categories are represented in the sample. The overall sample was randomly split into two sub-samples, one for an exploratory phase (N = 100) and the other for a confirmatory factor analysis and hypothesis testing (N = 254).

Result

Measurement validation

Seven items were removed by principal component Analysis with SPSS. Coefficient alpha's were all above the recommended value of 0.70 in this phase. Then a confirmatory factor analysis was conducted to assess the convergent and discriminant validities of the construct measures. As shown in table 1, all of the items loadings are satisfactory. Jöreskog ρ values surpassed 0,80 indicating a good reliability for each dimension. The convergent validity was tested with the average variance extracted (AVE) and was higher than 0.5 for each construct. In addition, as displayed in table 2 (in Appendix B), all latent variables have met the criteria for discriminant validity since (AVE) for all of them was greater than the variance explained between the associated constructs (R^2) (Fornell and Larcker 1981).

Structural equation models and hypothesis testing

Structural model results

It has been suggested that LISREL approach requires at least ten observations per manifest variable to obtain robust results (Chin 1998). Our sample (254) does not meet this criteria because the overall model includes five constructs measured by 34 indicators (after the confirmatory phase). Hence, in order to validate the structural model and estimate the causal relationships, we used the Partial Least Squares (PLS) method with Xlstat (2014) which provides an index of the predictive power of structural model (Goog-of-fit or *Gof*).

Indeed, the results, summarized in table 3 (in Appendix B), highlight a good fit of the structural model with the data. All *GoF* indexes are greater than 0.5. The index of the global model and that of the bootstrap model has very similar values that reveal a stability of the model. In addition, critical ratios are all greater than 1.96, implying that the predictive power of the model is statistically significant (see table 3). The direct effect hypothesis test was performed using classical multiple regressions (OLS). Coefficient of determination (R^2), "*Path coefficients*" and value of f^2 were interpreted (Hair et al. 2016).

As shown in the table 4 all R^2 are greater than 0.3 indicating the significance of the model (Chin 1998). Service environment and perceived service quality explain pleasure to more than 60%: $R^2 = 0.604$. The contribution of environment to R^2 is higher than that of perceived service quality (63% vs 37%). In addition, there is a strong positive relationship between environment and pleasure: the coefficient is close to 0.5 with $|t| = 0.000 < 0.01$ and $CR > 1.96$. The hypothesis (H1a) is supported. The link between perceived service quality and pleasure is also positive with a coefficient of (0.324) and significant ($CR = 4.058, p < 0.01$), the hypothesis H5a is thus supported.

The results show that our model predicts more than 52% of arousal. The link between the service environment and arousal is significant and positive ($\beta = 0.686, |t| = 0.000$), which leads to support the hypothesis H1b. However, the link between overall service quality and arousal is not significant: $|t| = 0.436$; the hypothesis H5b is therefore not supported. Similarly, H3 is supported ($\beta = 0.72, CR = 19.465, |t| = 0.000$).

In addition, the initial model explains 67% of customer loyalty to hotel, 33% of loyalty could be explained by variables that are not included in our study. It seems that the influences of pleasure, arousal and perceived service quality on loyalty are all positive and significant ($p < .01$) with structural coefficients of 34.6, 0.39 and 0.18 respectively. Thus, the hypotheses H2a, H2b and H4 are supported. Nevertheless, the coefficient of the effect of environment on loyalty is not significant ($\beta = 0.039, CR = 0.56, |t| = 0.58$), which leads to reject H6.

Indirect effects of service environment

Based on the cognitive-emotion approach, adopted in this study, a causal pathway "environment-perceived quality-pleasure-loyalty" was explored. To test this multiple-step multiple mediator model, we used the *MERDTHREE* macro proposed by Hayes, Preacher and Myers (2011) with the following script:

MEDTHREE y = Loyalty/X = Environment/M1 = Quality/M2 = Pleasure/Boot = 5000.

According to this method, the total indirect effect of environment on loyalty is the sum of the three specific indirect effects ($a_1b_1 + a_2b_2 + a_1a_3b_2$) (see Figure 2 in appendixes A). The table 5 shows the test of a causal association between environment and loyalty through two mediators.

Indeed, the four effects are significant as the zero is not in their confidence interval. This confirms the indirect effect of service environment on loyalty passing sequentially through perceived service quality and pleasure. H7 is therefore supported. Moreover, since the direct link between service environment and loyalty is not significant, as explained earlier, the mediation between these two variables is therefore total.

Moderating effect of optimal level stimulation

The test of the moderating effects hypotheses was carried out using partial least squares structural equation modeling with the PLS method under XISTAT by creating an interaction variable between the exogenous variables and OSL (Kenny and Judd 1984). The moderating effect, therefore, is attested if the interaction variable has a significant effect on the endogenous variable. OSL effects are analyzed through four versions of the global model after verifying the goodness-of-fit (absolute $GoF > 0.60$) for each model.

Based on the obtained results, the interaction variable OSL * Pleasure has a significant negative effect on loyalty ($p < 0.01$). OSL therefore has a significant moderating effect on the link between pleasure and loyalty. The hypothesis H8d is therefore supported. However, the moderation effect is not significant for the other assumed links. H8a, H8b and H8c were thus rejected.

Discussion

Consistent with previous research, the results of the structural model affirm that service environment should not be subsumed as a dimension within service quality conceptualizations but as a separate construct which precedes perceived service quality (Hooper, Brady and Baker 2013). In addition, the link between these two constructs is strongly supported with a positive coefficient ($\beta = 0.729$). This means that hotel service environment significantly affects the way customers perceive the hotel service quality. For example, if customers find a hotel exterior design pleasing, they may positively evaluate the quality of service' intangible elements, such as food quality, food price or hotel value (Radder and Wang 2006). The expected relationship between perceived service quality and loyalty (H 4) was supported. This implies that the more positive the perception of service environment, the more hotel clients would experience a positive evaluation of

hotel service, and the more their loyalty intention would be strong. This result is convergent with that obtained in previous studies which provide evidence for the cognitive evaluation of environmental cues as a sufficient condition to elicit behavioral responses (Wakefield and Blodgett 1999; Chebat and Michon 2003; Hooper, Brady and Baker 2013). Therefore, even in a context where the service is consumed for hedonic motivations, service quality can bring to a loyalty intention without being preceded by a pleasure or arousal feelings.

We found a direct positive relationship between overall perceived service quality and pleasure. Thus, a positive evaluation of hotel service increases consumer pleasure. This observation enriches the theory of Lazaros (1991) (cognitive theory of emotions) which postulates the causal role of cognition on emotion. In general, our result were consistent with previous studies that customer perception of product quality is a determinant of positive emotions (Baker, Levy and Grewal 1994; Chebat and Michon 2003; Kim and Moon 2009; Walsh et al, 2011; Siu ,Wan and Dong 2012).

However, the expected relationship between service environment and arousal was not supported (Chebat and Michon 2003; Walsh et al. 2011). This result may rely on our study context. Indeed, Wakefield and Blodgett (1999) confirmed the influence of service quality on arousal in quite particular contexts (Hockey games, a large family recreation center, and movie theaters) where activities are, themselves, very stimulating. Similarly, Hyun and Kang (2014) confirm this influence in the restaurant context where customers normally spend no more than three hours in the service place, while the stay in hotel is normally much longer and customer cannot be stimulated during the whole period of his stay.

In addition, luxury hotels, where our study was conducted, comply with a set of standards which makes them interchangeable in the eyes of customers. Thus, the low level of differentiation of service quality between luxury hotels may explain the lack of a significant relationship between perceived service quality and arousal. This argument is consistent with the theory of stimulation that new stimuli are better at stimulating clients than older stimuli (Berlyne 1960). Furthermore, upscale hotel customers generally have a high level of expectations, they wait an excellent service. As a result, it is very likely that a high service quality does not influence critically arousal state (Walsh et al. 2011).

According to the results of data analysis, it was revealed that service environment of luxury hotel does not directly influence customer loyalty. However, it can influence pleasure which in turn could elicit loyalty. This implies that pleasure provoked by service environment in customer increases his loyalty intention (confirming Kim and Moon 2009).

As expected, the chain of causality (service environment → service quality → pleasure → loyalty) was confirmed. The result of this multiple step multiple mediator effect implies that good hotel design could provide customer with a positive image of service delivered, which produce pleasure emotion. This emotion could, afterwards, provoke the desire to repeat the experience in the same hotel in the future, to recommend this hotel to those around him and spread word-of-mouth.

Finally, our study revealed the reducing effect played by OSL only for the relationship between pleasure and loyalty (H8d: $\gamma = -0.561$, $p < 0.05$). Thus, the higher is customer' optimal stimulation level, the less is the pleasure contribution in the formation of loyalty intention (confirming Bonnefoy-Claudet 2011). Moreover, OSL was not found to be a significant moderator between service environment and fidelity. Accordingly, whatever the optimal stimulation level, the direct relationship between service environment and loyalty remains insignificant.

Nevertheless, Maille (2003) partially validated the moderating role of the tendency for exploratory behavior (which reflects OSL) on the link between congruence of scents on purchase intention. Its study was carried out in retail context where switching, increasing or decreasing purchase intention don't imply a significant perceived risk that can be associated with the purchase of hotel service. As a result, we suggest that the relationship between behavioral intention (loyalty, purchase intention, etc.) and environmental stimuli more likely moderated by individual variables such as OSL in retail context than context of luxury product or service (Giannelloni 1997). Again, OSL is not found to be a moderator neither between perceived quality and loyalty nor between arousal and loyalty. Therefore, in case of high cognitive or affective evaluation, the variance in loyalty intention was not due to a tendency to search for variety. To a certain extent, this result is convergent with that of Temessek-Behi (2008) which showed that OSL does not moderate the effect satisfaction on loyalty in hotel context.

Conclusions, implications, limitations and future research

Managerial implications

Our study can help luxury hotel managers better understand how each type of quality stimuli can contribute to eliciting either emotional or cognitive evaluation eventually enhance guest loyalty intentions. The findings suggest that service environment seriously should seriously be considered in the marketing toolbox. The results also indicate that in the luxury hotel industry, it would be required to focus on different aspects of service environment, as the factorial contributions of its three dimensions are strong and significant (ambience: $\lambda = 0.73$, design: $\lambda = 0.74$ and social factors: $\lambda = 0.84$). All environmental elements should be carefully chosen to propose a pleasing service offering and create an immersive and memorable experience for clients. However, according to the results, the dimension "Social factors" has the highest weight (design was the second one in terms of factorial contribution). This suggests to give a greater importance to the "social factors" dimension, especially because it has the highest correlation with overall perceived service quality as well as pleasure and the second strongest correlation with arousal. One of the key drivers of success will be recruiting individuals who meet criteria of neat appearance and friendly personality. It is also essential to always strengthen employee training to refine their performance.

Similarly, when managers are decorating a hotel, account must be taken of tastes and preferences of targeted customers. In addition, place beauty and human capital should be in harmony with the overall image of the hotel and the type of service delivered in order to maximize the positive customer feedback. Based on the results relating to the links and emotions-loyalty and perceived service quality-loyalty, we recommend that luxury hotels should implement all strategies to promote positive emotions and cognitive reactions, such as innovation in decor, gastronomy, exceptional staff, equipment, customer instant request management, digital communication and in advertising campaigns (Hosany and Gilbert 2010) to generate future favorable behaviors. The last managerial contribution that we want to highlight is derived from the results concerning OSL's moderating effect, which is reflecting in this work, the disloyalty intention or exploratory behavior. Indeed, we advise to focus on clients whose optimal stimulation level is low since they would have an intention to return, to

recommend the hotel to others or to spread positive word-of-mouth.

Limits and future research

Our study has some limitations that offer opportunities for future research. The sample is composed of tourists crossed in some key places of the city of Nice (airport, SNCF station, beaches, Castle of Nice, etc.), the question of sample representativeness arises this method of data collecting could lead to ignore a category of people who do not frequent these places. We also mention that we did not work on eventual loyalty behavior in the luxury hotel as the longitudinal study on a real field was not possible. Also, we based on the cognition-emotions school to study the relationship between emotions and overall service quality by following Chebat and Michon's (2003) recommendation. Thus, for further research, it will be interesting to examine the alternative approach (emotion-cognition), and compare the two competing approaches to identify the most appropriate model for hotel context. Similarly, it is also desirable to explore the direct effect of arousal on pleasure (Hyun and Kang 2014), since this effect has never been tested in hotel industry.

Additionally, we can suggest to complete the conceptual model by incorporating other non-environmental explanatory variables such as food quality, price, hotel location, and to compare their effects with those of other environmental elements. Further work conducted, would consider optimal stimulation level, at the same time, as a moderator and an explanatory variable (Bréda 2005). We could also integrate other moderating variables such as need for cognition (Rieunier, 2002), need for stimulating, risk-taking tendency (Giannelloni 1997). And, last but not least, it will be interesting to examine the moderating role of culture to understand how different cultures react to different service environment. Given this, resultants could help managers better plan their development strategies or at least know how to operate reservations in their hotels by checking the client's culture and give them a room whose design is appropriate for their culture.

References

- Bagozzi, R.P., Gopinath M. and Nyer P.U (1999), "The role of emotions in marketing", *Journal of the Academy of Marketing Science*, 27, 2, 184-206.
- Baker, D. A. and Crompton, J. L. (2000), "Quality, satisfaction and behavioral intentions", *Annals of tourism research*, 27(3), 785-804.
- Baker, J. (1987), "The role of the environment in marketing services: the consumer perspective", in Czepiel, J.A., Congram, C.A. and Shanahan, J., *The services challenge: integrating for competitive advantage*, American Marketing Association, 79-84.
- Baker, J., Levy, M. and Grewal, D. (1992), "An experimental approach to making retail store environmental decisions", *Journal of Retailing*, 68 (4) 445-460.
- Baker, J., Parasuraman, A., Grewal, D. and Voss, G.B. (2002), "The influence of multiple store environment cues on perceived merchandise value and patronage intentions", *Journal of Marketing*, 66 (2), 120-141.
- Barber, Nelson and Scarcelli, Joseph M (2010), "Enhancing the assessment of tangible service quality through the creation of a cleanliness measurement scale", *Managing Service Quality: An International Journal*, vol. 20, no 1, p. 70-88.
- Belk, R.W. (1975), "Situational variables and consumer behavior", *Journal of Consumer Research*, 2 (3) 157-164.
- Berlyne, D. E. (1960), Conflict, arousal, and curiosity.
- Bigne, J. E., Sanchez, M. I. and Sanchez, J. (2001), "Tourism image, evaluation variables and after purchase behaviour: inter-relationship", *Tourism management*, 22(6), 607-616.
- Bitner, M.J. (1992), "Servicescapes: the impact of physical surroundings on customers and employees", *Journal of Marketing*, 56(2) 57-71.
- Bonnefoy, C.L. (2011), «*Les effets de la thématization du lieu sur l'expérience vécue par le consommateur: Une double approche cognitive et expérientielle*, Doctoral dissertation, Université de Grenoble).
- Bréda C. (2005), "Individual factors of loyalty in the context of an experiential consumption", in the *Consumer and Personality Research Conference*, Dubrovnik, Croatia, 20-24th September. 2005.
- Brunner-Sperdin, A., Peters, M. and Strobl, A. (2012), "It is all about the emotional state: Managing tourists' experiences", *International Journal of Hospitality Management*, 31(1), 23-30.

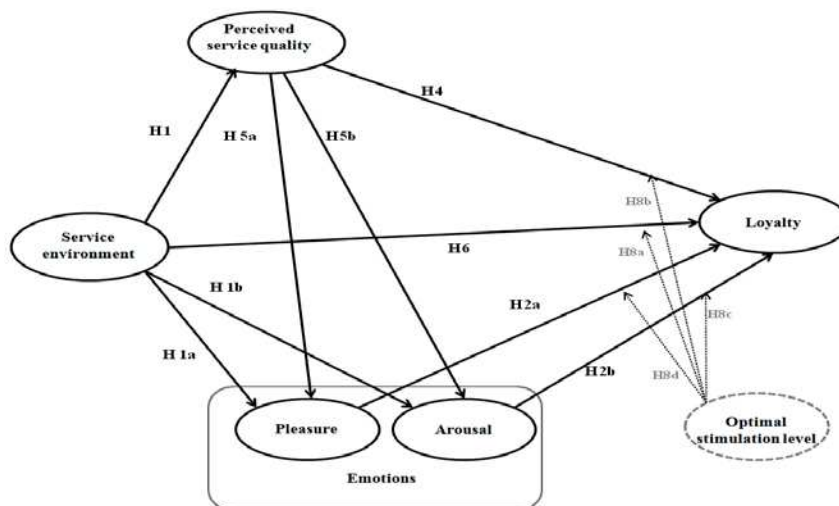
- Chebat, J.C. and Michon, R. (2003), "Impact of ambient odors on mall shoppers' emotions, cognition, and spending: A test of competitive causal theories", *Journal of Business Research*, 56(7), 529-539.
- Chin W. W. (1998), "The partial least squares approach for structural equation modeling", in G. A. Marcoulides (Ed), *Modern Methods for Business Research*, London, Lawrence Erlbaum Associates, 295-236.
- Cronin, J. Joseph. Jr. and Steven A. Taylor (1992), "Measuring Service Quality: A Reexamination and Extension," *Journal of Marketing*, 56 (July), 55-68.
- Demoulin, N. T. (2011), "Music congruency in a service setting: The mediating role of emotional and cognitive responses", *Journal of Retailing and Consumer Services*, 18(1), 10-18.
- Donovan, R.J and Rossiter J.R. (1982), "Store atmosphere: an environmental psychology approach", *Journal of Retailing*, 58(1), 34-57.
- Falcy, S. (1993), «Pour une mise en œuvre du concept du niveau de stimulation optimal dans un contexte français», *Actes du Xème Congrès de l'Association Française de Marketing*, Marseille, 513-542.
- Fornell, C. and Larcker, D. F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of marketing research*, 39-50.
- Giannelloni, J. L. (1997), «Validation d'une échelle de mesure du niveau de stimulation optimal», *Actes du 13e Congrès de l'Association Française de Marketing*, 1011-1039.
- HA, Jooyeon and Jang, SooCheong Shawn (2009), "Perceived justice in service recovery and behavioral intentions: The role of relationship quality", *International Journal of Hospitality Management*, 2009, vol. 28, no 3, p. 319-327
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. and Sarstedt, M. (2016), "A primer on partial least squares structural equation modeling (PLS-SEM)", Sage Publications.
- Han, H. and Ryu, K. (2009), "The role of physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry", *Journal of Hospitality and Tourism Research*, 33 (4), 487-510.
- Hayes, A.F., Preacher, K.J. and Myers, T.A. (2011), "Mediation and the estimation of indirect effects in political communication research", *Sourcebook for political communication research: Methods, measures, and analytical techniques*, 23, 434-465.
- Hightower, R., Brady, M. K. and Baker, T. L. (2002), "Investigating the role of the physical environment in hedonic service consumption: an exploratory study of sporting events", *Journal of Business Research*, 55(9), 697-707.
- Hooper, Daire, Joseph Coughlan, and Michael R. Mullen, "The servicescape as an antecedent to service quality and behavioral intentions", *Journal of services marketing* 27.4 (2013): 271-280.
- Hosany, S. and Gilbert, D. (2010), "Measuring tourists' emotional experiences toward hedonic holiday destinations", *Journal of Travel Research*, 49(4), 513-526.
- Huang, C. Y., Chou, C. K. and Wu, P.H. (2016), "Servicescape, service convenience, and service evaluation in food and beverage industry", *The International Journal of Organizational Innovation* 8(3), 262-270.
- Hyun, S.S. and Kang, J., (2014), "A better investment in luxury restaurants: Environmental or non-environmental cues", *International Journal of Hospitality Management*, 39, 57-70.
- Jang, S. and Namkung, Y. (2009), "Perceived quality, emotions, and behavioral intentions: application of an extended Mehrabian-Russell model to restaurants", *Journal of Business Research* 62 (4), 451-460.
- Jani, D. and Han, H. (2014), "Personality, satisfaction, image, ambience, and loyalty: Testing their relationships in the hotel industry", *International Journal of Hospitality Management*, 37, 11-20.
- Jani, D. and Han, H. (2015), "Influence of environmental stimuli on hotel customer emotional loyalty response: Testing the moderating effect of the big five personality factors", *International Journal of Hospitality Management*, 44, 48-57.
- Keillor, Bruce D., Hult, G. Tomas M. and Kandemir, Destan (2004), "A study of the service encounter in eight countries", *Journal of International Marketing*, vol. 12, no 1, p. 9-35.
- Kenny D. A. and Judd C. M. (1984), "Estimating the linear and interactive effects of latent variables", *Psychological Bulletin*, 96, 1, pp. 201-210.
- Kim, M. K., Park, M. C. and Jeong, D. H. (2004), "The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services", *Telecommunications policy*, 28(2), 145-159.

- Kim, W.G. and Moon, Y.J. (2009), "Customers' cognitive, emotional, and actionable response to the servicescape: a test of the moderation effect of the restaurant type", *International Journal of Hospitality Management*, 28(1), 144–156.
- Kotler, P. (1973), "Atmospherics as a marketing tool", *Journal of Retailing*, 49(4), 48-64.
- Lazarus RS., *Emotion and adaptation*, New York: Oxford Univ. Press, 1991.
- Lorig TS, Schwartz GE. Brain and odor: alteration of human EEG by odor administration. *Psychobiology* 1988;16(3):281 – 4.
- Lee, J. S., Hsu, L. T., Han, H. and Kim, Y. (2010), "Understanding how consumers view green hotels: how a hotel's green image can influence behavioural intentions", *Journal of Sustainable Tourism*, 18(7), 901-914.
- Lichtle, M. C. (1998), *L'impact de la couleur d'une annonce publicitaire sur les émotions ressenties face à l'annonce, les attitudes et les croyances envers la marque*, Doctoral dissertation, Paris 9.
- Lichtlé, M.C and Plichon V. (2008), «Mieux comprendre la fidélité des consommateurs», *Recherche et Applications en Marketing*, 23 (4), 121-141
- Lin, I.Y. (2010a), "The combined effect of color and music on customer satisfaction in hotel bars", *Journal of Hospitality Marketing and Management*, 19(1), 22–37
- Maille V. (2003), «L'influence des odeurs sur le consommateur: la tendance à la recherche de sensation et au comportement exploratoire comme variables modératrices», *Revue Française du Marketing*, 194, 49-64.
- Mason, David DM, Tideswell, Carmen, and ROBERTS, Elizabeth (2006), "Guest perceptions of hotel loyalty", *Journal of Hospitality & Tourism Research*, 2006, vol. 30, no 2, p. 191-206.
- Mattila, A.S. and Wirtz J. (2001), "Congruency of scent and music as a driver of in-store evaluations and behavior", *Journal of Retailing*, 77 (2), 273-289.
- Mehrabian, A. and Russell, J. A. (1973). "A measure of arousal seeking tendency", *Environment and Behavior*, 5(3), 315.
- Mehta, Ritu, SHARMA, Narendra K., and SWAMI, Sanjeev, "The impact of perceived crowding on consumers' store patronage intentions: Role of optimal stimulation level and shopping motivation", *Journal of Marketing Management*, 2013, vol. 29, no 7-8, p. 812-835.
- Moulin, J.L. (1998), «Des Communications Interpersonnelles à la Fidélité à la Marque : essai de modélisation», *Recherche et Applications en Marketing*, 13, (3), 21-42.
- N'Goala, G., (2003), «Proposition d'une conceptualisation et d'une mesure relationnelle de la fidélité», *19ème Congrès de l'Association Française du Marketing*.
- Oliver, R.L. (1999), "Whence consumer loyalty?", *The Journal of Marketing*, 33-44.
- Pham, M. T., Cohen, J. B., Pracejus, J. W., and Hughes, G. D. (2001), "Affect monitoring and the primacy of feelings in judgment", *Journal of consumer research*, 28(2), 167-188.
- Plichon V. (1999), *Analyse de l'influence des états affectifs sur le processus de satisfaction dans la grande distribution*, Doctoral dissertation, Université de Bourgogne.
- Radder, L. and Wang, Y. (2006), "Dimensions of guest house service: Managers' perceptions and business travellers' expectations", *International Journal of Contemporary Hospitality Management*, 18(7), 554 562.
- Rieunier, S. (2000), *L'influence de la musique d'ambiance sur le comportement du consommateur sur le lieu de vente*, Doctoral dissertation, Université Paris-Dauphine.
- Roulet B., Ben Dahmane Mouelhi N. and Droulers O. (2003), «Impact de la couleur de fond sur les croyances envers le produit : une approche multi-culturelle», *Actes du 19ème Congrès International de l'Association Française du Marketing*, Tunis.
- Ryu, K. and Jang, S. (2008), "Influence of restaurants' physical environments on emotion and behavioral intention". *The Service Industries Journal*, 28(8), 1151-1165.
- Siu, N. Y. M., Wan, P. Y. K. and Dong, P. (2012), "The impact of the servicescape on the desire to stay in convention and exhibition centers: The case of Macao", *International Journal of Hospitality Management*, 31(1), 236-246.
- Steenkamp, J. B. E. and Baumgartner, H. (1998), "Assessing measurement invariance in cross-national consumer research", *Journal of consumer research*, 25(1), 78-90.
- Temessek, B.A. (2008), *L'influence de l'environnement physique et des interactions sociales sur la fidélité lors d'une rencontre de service: application au cas de l'hôtellerie de tourisme*. Doctoral dissertation, Université de Savoie- Chambéry, Annecy.
- Turley, Lou W., and Ronald E. Milliman. "Atmospheric effects on shopping behavior: a review of the experimental evidence", *Journal of business research* 49.2 (2000): 193-211.

- Wakefield, K. L. and Blodgett, J. G. (1999), "Customer response to intangible and tangible service factors", *Psychology and Marketing*, 16(1), 51-68.
- Wakefield, K. L., Blodgett, J. G. (1994), "The importance of servicescape in leisure service settings", *Journal of Services Marketing*, 8(3), 66-76.
- Wakefield, Kirk L., and Jeffrey G. Blodgett (1996), "The effect of the servicescape on customers' behavioral intentions in leisure service settings", *Journal of Services Marketing* 10.6 (1996): 45-61.
- Walsh, G., Shiu, E., Hassan, L.M. Michaelidou, N. and Beatty, S.E. (2011), "Emotions, store-environmental cues, store-choice criteria, and marketing outcomes", *Journal of Business Research*, 64(7), 737-744.
- Zajonc RB and Markus H. Affect and cognition: the hard interface. In: Izard CE, Kagan J, Zajonc RB, editors. Emotions, cognition, and behavior. Cambridge: Cambridge Univ. Press, 1984. p. 63 – 103.
- Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1996) "The behavioural consequences of service quality", *Journal of Marketing*, 60, 31–46.
- Zeithaml, Valarie A. (1988), "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence", *The Journal of marketing*, 1988, p. 2-22.

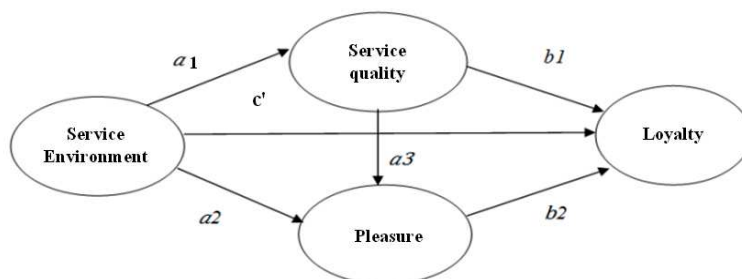
Appendixes
Appendix A: Figures

Figure 1. Conceptual model



Notes: the hypothesis H7 concerning the indirect effects is not presented.

Figure 2: A multiple-step multiple mediator model with two proposed mediators.



Appendix B: Tables

Table 1: items and confirmatory factor analysis results

Constructs and measured items	Standard loadings
<i>Ambience</i> (Cronbach alpha =0.88; $\rho = 0.88$; AVE= 0.72)	0.73
The lighting is disagreeable / agreeable	0.77
The hotel is clean	0.86
The hotel is noisy/quiet	0.90
<i>Design</i> (Cronbach alpha= 0.87; $\rho = 0.89$; AVE= 0.59)	0.74
The hotel is decorated in an attractive way	0.80
The use of color in the decor scheme adds excitement to this hotel environment	0.77
The rooms are well designed	0.75
The architecture unattractive /attractive	0.73
The style of the interior design accessories is fashionable.	0.79
<i>Social factors</i> (Cronbach alpha=0.91; $\rho = 0.90$; AVE= 0.649)	0.84
The employees are clean and well dressed	0.87
The employees are friendly	0.86
The employees are always willing to help the guests	0.81
The clients are well dressed	0.71
The number of clients is not adequate / adequate	0.76
<i>Pleasure</i> (Cronbach alpha= 0.873; $\rho = 0.87$; AVE= 0.70)	
Displeased / pleased	0.85
Dissatisfied / satisfied	0.86
Unhappy / happy	0.80
<i>Arousal</i> (Cronbach alpha= 0.837; $\rho = 0.84$; AVE= 0.64)	
Without energy/ full of energy	0.80
Sleepy / wide-awake	0.76
Not stimulated /stimulated	0.83
<i>Perceived service quality</i> (Cronbach alpha =0.892; $\rho = 0.89$; AVE= 0.63)	
Overall, I got a very good service in this hotel	0.81
In general the service provided is excellent	0.85
The overall quality of service is exactly as I expected	0.64
The overall perceived service quality is just what it should be	0.81
I believe the performance of the employees is excellent	0.84
<i>Loyalty</i> (Cronbach alpha= 0.893 $\rho = 0.89$; AVE= 0.63)	
Say positive things about this hotel to other people	0.84
Encourage friends and relatives to make a stay in this hotel	0.85
Recommend this hotel to someone who seeks my advice	0.73
Consider this hotel as my first choice to make a stay	0.75
Return to this hotel when the opportunity arises	0.97
<i>Optimal stimulation level</i> (Cronbach alpha= 0.967; $\rho = 0.96$; AVE= 0.82)	
I like to try new and different things rather than doing the same old things (-)	0.868
I am constantly seeking for new ideas and experiences	0.899
I like constantly changing activities	0.914
I like to experience novelty and change in my daily routine	0.92
I like a job that offers change, variety, and travel, even if it involves some danger	0.917

Table 2: Discriminant validity

	Design	Social	Ambience	Quality	Pleasure	Arousal	Loyalty
Design	0.662						
Social	0.292	0.718					
Ambience	0.236	0.301	0.808				
Quality	0.266	0.503	0.315	0.697			
Pleasure	0.380	0.433	0.314	0.483	0.798		
Arousal	0.293	0.337	0.573	0.302	0.292	0.756	
Loyalty	0.315	0.287	0.594	0.442	0.507	0.498	0.698

Table 3: Goodness of fit of the final model

	GoF	GoF (Bootstrap)	standard error	Critical ratio (CR)	Lower bounds (95%)	Upper bounds (95%)
Absolut	0.66	0.654	0.020	32.192	0.605	0.693
Relative	0.917	0.902	0.014	67.530	0.870	0.928
External model	0.999	0.998	0.000	3462.878	0.997	0.998
Internal model	0.917	0.904	0.013	68.006	0.872	0.930

Table 4: Structural model results

Endogenous variables (R ²)	Exogenous Variables	Coefficient path (β)	Poefficient path (Bootstrap)	Pr > t	Critical ratio (CR)	f ² (%)	Resultat
Pleasure (0.604)	Environment	0.509	0.501	0.000	6.868	62.708	H1a supported
	Qualit	0.324	0.328	0.000	4.058	37.292	H5a supported
Arousal (0.523)	Environnement	0.686	0.679	0.000	7.717	94.774	H1b supported
	Quality	0.050	0.052	0.436	0.675	5.226	H5 not supported
Quality (0.531)	Environment	0.729	0.72	000	19.465	100	H3 supported
Loyalty (0.67)	Environment	0.039	0.035	0.580	0.560	4.167	H6 not supported
	Pleasure	0.346	0.358	0.000	4.774	36.76	H2a supported
	Arousal	0.390	0.384	0.000	6.479	41.06	H2b supported
	Quality	0.181	0.180	0.001	3.314	18.01	H4 supported

Table 5: Indirect effects of service environment on loyalty (Environment → Perceived quality → Pleasure → Loyalty):

Indirect effects	Value	Lower bounds (95%)	Upper bounds (95%)	Result
Total indirect effects ($a1b1 + a2b2 + a1a3b2$)	0.4016	0.277	0.511	Significant
Environment → Service quality → Loyalty ($a1b1$)	0.1476	0.052	0.244	Significant
Environment → Pleasure → Loyalty ($a2b2$)	0.1734	0.088	0.266	Significant
Environnement → Service qualité → Pleasure → Loyalty ($a1b3 b2$)	0.0806	0.029	0.139	Significant

Table 6: Test of the hypothesized moderating effect of OSL

	Structural links	Path coefficients	Pr > t	Critical ratio (CR)
H8a	OSL*Environment → Loyalty	-0.128	0.559	-0.560
H8b	OSL*Quality → Loyalty	-0.234	0.200	-1.306
H8c	OSL*Arousal → Loyalty	-0.222	0.266	0.225
H8d	OSL*Pleasurr → Loyalty	<u>-0.561</u>	<u>0.002</u>	<u>-2.592</u>

The Importance of Being Earnest in Social Media: Juxtaposing Oscar Wilde's Script with an Empirical Case Study to Examine Digital Deceit from the Blogger's Perspective

Abstract

Deceit in social media by independent bloggers is a topic of concern for brand managers and for consumers. Empirical research has focussed on the consumer or the brand rather than on the perspective of the online source. This paper elucidates the blogger's motivations for and the contexts in which she is most likely to publish deceitful content. The methodology is an analogical problem-solving process juxtaposing Oscar Wilde's "The Importance of Being Earnest" with an empirical case study. We use the analogy to reverse the perspective of the revisited study from the consumer to the blogger. The results support direct, differentiated, brand management of bloggers according to their level of expertise and to the adopted social or trade norm. A model is proposed.

Key words: Stealth Marketing, Lying and Deception, Disclosure, Self-Presentation, Social Media

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Setting the Stage

In 2008 the AMA Journal of Public Policy & Marketing published a special section on Stealth Marketing. Among the special edition papers, the most frequently cited guerrilla attempt was a blog written by US citizens, Laura and Jim, about their road trip across America, camping in Wal-Mart parking lots. In their blog, which rapidly acquired a substantial following, Laura and Jim reported in glowing terms the encounters they had made with Wal-Mart personnel. A scandal broke when BusinessWeek (Gogoi 2006) revealed that the road trip was sponsored by Wal-Mart. This was not mentioned in the blog. In defence of the criticism, Laura, a freelance writer, claimed earnestness "We were planning a trip on our own dime, and we were thrilled to have a sponsor who would do all our legwork". She also said that she did not "feel like she's misleading anyone" (op cit). In their contribution to the special edition, Martin and Smith (2008) judged the Wal-Mart "flog" (fake blog) along with other, similar cases to be deceptive and contrary to the AMA's basic values of honesty, fairness, and openness. The following years brought research articles reinforcing the view that stealth marketing is morally wrong and potentially damaging to a firm's reputation (Magnini 2011). Publications examine the ethical issues related to masked marketing (Rinallo et al. 2013) and define the conditions under which a marketing tactic can be considered deceitful (Sher 2011). Immoral advertising practices have been emphasized as a core transgression with negative consequences on Consumer Perceived Ethicality (CPE) (Brunk 2010). Conceptual and deontology papers have focussed on covert marketing in the context of the Internet, on social media such as blogs (Magnini 2011) and on fake online customer reviews (Munzel 2015).

The literature which has emerged since the Wal-Mart flog takes either the perspective of the firm or that of the consumer. Work has been carried out on the relative influence and the timing of disclosure and non-disclosure of covert marketing sponsors (Campbell, Mohr and Verlegh 2013), on the credibility of overt versus covert marketing sources (Liljander, Gummerus and Söderlund 2015) and on the effects of lay-person versus expert self-presentations (Willemsen, Neijens and Bronner 2012). On the other hand, the Persuasion Knowledge Model (Friestad and Wright 1994) has been used to study consumer coping strategies with marketing attempts (Evans and Park 2015; Wei, Fischer and Main 2008). In sum, scarce, if any, attention has been given to the motivations and to the *modus operandi* of Laura and Jim as the online

perpetrators of the initial crime.

Recent evidence of fake consumer reviews in social media has prompted a line of research into automated digital deception detection to protect consumers against "online spam" (Li et al. 2014). Computer science research centres on the use of natural language for detection of digital lie detection, whether the offenders are individuals (Ott et al. 2011) or fake consumer reviewers working in groups (Mukherjee, Liu and Glance 2012). However, these advances are not yet successfully applied by all the major online brands. A demonstration is found in TripAdvisor's repeated failure to detect bogus restaurants and to correct high rankings based on fake ratings by journalists (Mezmorian and Second 2015). The TripAdvisor example raises ethical questions about online deceit originating from third parties with direct or indirect professional interests in the content they produce.

Blogs may be produced by amateurs or by independent professionals such as consultants, gourmet chefs, fashionistas or beauticians. As their following grows, the authors of these blogs become 'influencers', integrated by brands as media in their social campaigns (Burns 2016). The influencers may abandon their initial trade for a full time social media activity, whether they manage the relationships with their sponsor brands directly or through an agency (Woods 2016). The adoption by the influencers of a social media norm as opposed to a trade norm creates a conflict of interest between the remunerated affiliated advertising and the independent editorial content. In the case of the influencers, there is a fuzzy line between the remunerated advertising model through affiliated links and the public relations (PR) model incentivised through free goods and invitations to PR events. This entertained confusion leads to less transparency than should be expected under FTC (Federal Trade Commission) guidelines (Kamerer 2015).

In the light of these contemporary concerns, the case of the blogger is of interest to revisit. Researching the perspective of the independent blogger can help management in impeding deviant behaviour and contributes the bloggers perspective to the corpus of literature on online deceit.

The topic of this paper is digital deceit by third party, online content editors who present themselves as independent of the brand whose products they endorse. The central research objective is to elucidate the contexts in which bloggers are most likely to lie by commission or by omission in producing intentionally misleading content, considering the underlying truth of the situation and their self-justification for deceit. The methodology

is a case study analysis involving the juxtaposition of empirical research, previously carried out by the authors in the context of a beauty blog (Salerno, Martin and Crié 2014), with Oscar Wilde's (1895) theatrical script "The Importance of Being Earnest". Through analogical reasoning, the complex underlying relationships between the concepts of the empirically grounded model are revealed. The phenomenological analysis of the literary work draws untapped meaning from the model and authorises the reversal of the perspective from the consumer to that of the blogger, extending the contribution to the context of digital deceit which would be difficult to examine under laboratory conditions.

The empirical case study adapts the Persuasion Knowledge Model (PKM) (Friestad and Wright 1994) to a social media context where the commercial persuasion intentions of the online publisher are less apparent than in classical advertising media. The model explains the perceived sincerity of the source and the behavioural predispositions of the consumers according to the self-presentation and disclosure non-disclosure conditions. It accounts for the influence, on the perceived sincerity, of the inferences which the readers make of the internal (passion-sharing) and external (remuneration) motives of the online source from the blog presentation narrative. The empirical results are used to compare the effectiveness of editorial content provided by a layperson versus a professional and under disclosure and non-disclosure conditions. This provides insight into the motives of the online source in terms of the potential effectiveness of a deceitful marketing tactic.

There is an evident parallel between the remunerated professional blog editor who masquerades as an independent layperson and Oscar Wilde's country gentleman, Jack, who invents a fictitious, rogue brother, Ernest, to lead a more exciting life in town under the assumed false identity (Wilde 1895). The multiple semantic levels of Oscar Wilde's "Trivial Comedy for Serious People" substantiate its use as an allegory for the study of deceit in social interaction. Borrowing from Holyoak (1982), we employ the term allegory as "a discursive metaphorical analogy – metaphorical in that it relates disparate semantic domains, and discursive in that the metaphor makes an extended statement about the target topic".

The remainder of this paper is structured as follows. In the next section we position the relevance of the empirical case study and of the allegory in relation to the research into digital deceit. We then map the allegory to the context and to the findings of the empirical research. We explore three vertical levels of meaning corresponding to three semantic levels which we identify in Wilde's work. Each of these

levels relates horizontally to the target domain (the study) through the insights derived in the analogical mapping. We present the case study analysis, following the semantic structure of the theatre script to organize the thought processes and gain additional insights as we revisit and extend the findings of the study. The three levels derived from the horizontal map order the research problem into three successive questions. First, which deceitful blog presentation contexts are most likely to be effective compared with the truth? Second, do the comparisons of the effectiveness of the truth versus deceit hold when the product recommendations themselves are not in earnest? Third, given the underlying truth (affiliation, professional status, level of expertise), what is the likelihood of the online source lying by omission and or by commission? In the final section, we discuss the implications of the new contribution. An English language synopsis of the empirical research is available at <http://www.iae.univ-lille1.fr/recherche/projets-recherche/the-importance-of-being-earnest-in-social-media-annexes>. Quotations from Wilde (1895) will be made parenthetically¹. Due to the methodology and to the topic, the literature review is not included as a specific section but is implicit throughout the paper.

The relevance of the empirical case study and of the allegory for researching digital deceit

We adopt Sher's (2011) definition of deceit as a marketing tactic whereby "the agent intentionally performs an action *she*² expects will bring about a particular misconception in her target audience". This definition covers stealth attempts but it also extends to a context where an amateur blogger falsely claims to have professional qualifications or to a context where a professional content editor publishes a product review without disclosing her affiliation. More specifically, we refer to online or "digital deception", a term defined by Hancock (2007) as "the intentional control of information in a technologically mediated message to create a false belief in the receiver of the message."

The blog can be considered an easy, low cost type of deceit with a high probability of success due to the ease of manipulating text content and to the targets' "low information literacy and lack of expectation for verifiability and even accountability" (Tsikerdekis and Zeadally 2014). The temptation for the independent blogger to deceive is therefore high, entailing risks for firms of losing their consumer perceived ethical reputations through the autonomous actions of third party bloggers whose personal motivations and perception of the consequences of deceit may not match those of the firm. Such uncontrolled content potentially creates as much damage as "flogs"

(Martin and Smith 2008), prohibited by legislation such as the FTC product endorsement guidelines (Federal Trade Commission 2014).

Digital deceit in social media can operate through the channel, through the content or through the assumed identity of the sender or of the author (Tsikerdekis and Zeadally 2014). In their thorough review, Tsikerdekis and Zeadally draw on two streams of literature, on the one hand the literature on lying and on the other hand, the literature on identity focussing on self-presentation. The corpus of empirical research on lying is useful in examining the perspective of the author of voluntarily misleading digital content. Most of the experimental protocols use dice throwing or other chance mechanisms whereby the subjects are asked to report a win or lose condition. The manipulation is such that subjects are financially rewarded for cheating. These studies compare the declarations of the subjects versus the distribution which would be obtained if no one cheated. This allows to measure both the percentage of people who cheat and the overall rate of lying. However, it is difficult to conclude from these results, other than speculation, what the effects on consumer perceptions would be in a natural situation of an online source attempting to write false content.

The empirical case study as the target domain

Albeit carried out under laboratory conditions, the results of the research, conducted by the authors in the context of a beauty blog, can provide insight into the motives of the online source in terms of the potential effectiveness of a deceitful marketing tactic. Beauty is a propitious blog theme for amateurs, experts, professional beauticians and make-up artists from whose ranks some of the most high-earning influencers emerge. Moreover, the beauty industry is under criticism for misleading advertising (O'Neil 2014). The beauty blogger can lie by commission through the content text narrative by making false assertions about the product or she can lie by omission by not disclosing her financial interests through affiliation with a brand. She can also lie by commission in assuming a false identity, passing herself off for a consumer when in fact she is a professional. A blogger presents his or her identity through narrative in the text form of the blog content or through a series of successive asynchronous posts through which readers can make inferences. The model contributed by the authors reposes on the inferences the consumers make of the cues provided by the blogger from the self-presentation narrative. For the deception to be operative, the receiver must believe or enter the lie. At different levels of perceived sincerity, the

underlying mechanisms may alter the efficacy of the deceit. The empirical results from the test protocol conducted in the context of a beauty blog therefore constitute an appropriate case for the study of digital deceit.

For reference purposes, the results of the case study are consolidated in Tables 1, 2 and 3 for each of four experimental blog contexts. Table 1 shows the means of the variables studied. Table 2 shows the effects of the external and of the internal motive inferences on the perceived sincerity, Table 3 shows the effect of the perceived sincerity and of the perceived expertise on the intent towards the product. (Table 1, Table 2, Table 3 about here)

The results show that for bloggers presenting themselves as a layperson, there is a strong positive effect of the internal passion sharing motive inference on perceived sincerity. This effect will be offset by the negative effect of the external inference on same if they disclose their financial interests. On the other hand, in the case of the self-proclaimed professional beautician, the internal motive inference will have a stronger positive effect on perceived sincerity under disclosure conditions than if she is covert. In addition, the positive effect of perceived sincerity on intentions is highest for the transparent professional. In terms of the comparative effectiveness of the different presentation contexts, these results encourage transparency among professional online sources, while they discourage disclosure by a self-proclaimed layperson. However, the model should be used prudently. The effectiveness of the persuasion tactic will depend not only on the readers' interpretation of the self-presentation and of the disclosure cues, but also on the perceived sincerity of the source in making 'earnest' product recommendations. At higher or lower levels of perceived sincerity, independent of the presentation - disclosure context, the comparative efficacy of the blog presentations will differ. Moreover, there is no significant difference in the mean product intentions between the four blog contexts (Table 1). If a content editor were to test the four stimuli on a split run basis, she would conclude that there is no difference in the efficiency of the endorsements in generating revenue. The relationships between the variables are not immediately apparent, due to the negative and null (positive) effects of disclosure on the effects of the external (internal) motive inferences on perceived sincerity, moderated by the self-presentation narratives. Therefore, to gain an understanding of the circumstances in which a blogger might be tempted to deceive her readers, the underlying mechanisms which are revealed by the model warrant further exploration and thought.

The theatre script as the base analog for answering research questions in the target domain

Much of the digital identity literature stems from Goffman's (1959) use of theatre as a metaphor for self-presentation, as reconsidered in a social media context by Hogan (2010). Goffman's dramaturgical model of human interaction sets individuals on the stage of everyday life, playing situational roles that explicitly or implicitly signify social characteristics so that they may control the impressions their audience makes of them. Through these inferences, the actor's identity is construed by others as the intended role. Hogan (2010) clarifies the ontological distinction between Goffman's actor, performing in real-time before an audience, and the asynchronous social media artefact, such as a face-book Facebook post or "exhibition", which "lives on for others to view on their time". In their conceptual paper, Orsatti and Reimer (2015) posit that identity making in social media is a multimodal, "active achievement involving reflective, narrative and active modes". Individuals narrate coherent life stories through asynchronous artefacts exhibited on social networks that fit contextually into the narratives of their social contacts. They actively perform roles in synchronous social and professional situations, all the while constructing a reflective representation of their inner self which is perceived as coherent despite the multiplicity of the identities which they project. From this angle, the self-presentation narrative of the case study blog is a single, asynchronous artefact contributing to the identity making of the online source. It is not, strictly in Goffman's sense, a performance by the actors in interaction with the audience. However, in considering the theatre metaphor, while the performance is synchronous, the script remains as an artefact, capable of reinitiating the dynamic interpretation by the actors in many ways. The script contains the static properties of the artefact together with the dynamic properties of the interactions of the actors with the other players and with the audience. One of Goffman's main propositions is the use of the theatre metaphor to explain how individuals as actors control the impressions their audience makes of them. However, this use of the theatre underplays the role of authorial control. In her contribution to a book about Shakespeare's use of facial expression, Loomis (2015) shows how Shakespeare masters the conveyance of identity, emotion and the moral fibre of his characters by generations of future players. Similarly, we posit that, rather than the actors, it is Oscar Wilde, as the master of social interaction, who has the inherent

understanding of the mechanics of deceit. His theatre script can therefore appropriately serve as an analogy to structure the thought processes as we unravel the complex underlying mechanisms of the empirical case study. The untapped meaning drawn from the model through the analysis of the script authorizes the reversal of the perspective of the grounded model from the consumer to the blogger, without recourse to further experimentation under conditions difficult to manipulate, given the research question.

Holyoak's (1982) analogical framework for literary interpretation accurately describes the process which we adopt. The interpretation of the vertical levels of meaning of the literary work gives rise to horizontal analogies between the base analog (the play) and the three semantic levels of the target analog (the empirical study). Namely, there are parallels to be drawn at the "trivial" "surface" (Lady Bracknell, 3. 169)³ level of the plot, from the dialogues and at the deeper "serious" level of the underlying meaning which Wilde conveys through his use of contrasts. This horizontal mapping produces insights from the interpretation of the base analog and which are seen to apply to the target analog. The horizontal, semantic levels then vertically structure the target case study analysis.

The triple-level horizontal map from "The Importance of Being Earnest" to the case study

The first level of the map to the target domain is provided by the plot; who is deceiving whom, about what and for which immediately evident, external, motives. Jack and Algernon have deceived each other, and they will continue to deceive Gwendolen and Cecily until the disclosure in Act III. The other characters also deceive. Miss Prism omits to tell Gwendolen in which dramatic circumstances she had lost the novel she had written (2. 135) and Lady Bracknell deceives her husband when she follows Gwendolen to Jack's country estate (3. 167). In the study, the online source, 'Agathe' is the potential deceiver. She may be acting alone, in collusion with a firm or may not even exist, such as in the case of a 'flog'.

The literature defines deception as the opposite of truthfulness. Deception can be through 'omission' or 'commission'. While omission is deceiving someone by not providing all the information necessary for the receiver to apprehend the truth, commission is an active form of lying (Lee 2004). Sher (2011) defines deceptive marketing tactics as those which "intend to bring about a consumer misconception by providing what the marketer believes is false evidence, omitting key evidence, or misrepresenting what the evidence means". All three forms of deception are

found in the play; however, the deceptive modes differ with the characters. Jack lies by omission by not mentioning Cecily's existence to Gwendolen, he lies by commission about being called Ernest and he attempts to misrepresent the evidence of the inscription inside the cigarette case when he tells Algernon that Cecily is his aunt (1. 113-114). Algernon, on the other hand, lies only by commission. He lies by commission each time he "Bunburies", using a fictitious invalid friend, Bunbury as cover to escape from his social obligations in town. He lies by commission when he assumes the identity of Jack's invented brother, Ernest, to meet Cecily. In the target domain context, the online source can lie by omission about her financial interests with the recommended brand, she can lie by commission about her level of expertise or about her layperson status, or by making false assertions about the products and/or she can misrepresent the evidence through misleading product recommendations. The triadic relationship between the proclaimed deceitful identity (assumed name Ernest), the deceiver's perception of the identity (real name Jack) and the underlying real identity (Jack is really Ernest) is reflected in the target domain. This relationship structure maps to the proclaimed truth (the deceitful blog), the deceiver's perception of the truth (the online source's beliefs about the products and about her level of expertise) and the underlying truth (the product characteristics, her actual level of expertise, her professional or her lay-person status).

We can additionally map the deceiver's perception of the moral integrity of the audience, acting as a moral inhibitor for the deceit. Based on Sher's (2011) framework, the *intent* to manipulate the audience's normal decision-making process through a deceptive blog content is a necessary component for the study of contexts in which the source would be likely to deceive. In other words, the deceiver (Jack – Agathe, the blogger) must intend to manipulate the receiver (Gwendolen – the consumer) through the object of the deception (the name Ernest – the blog presentation and/or content) with a specific intent to manipulate her decision process (selection of an eligible husband / evaluation of the product benefits) to a specific end (marriage / financial gain from consumer response). Initially, neither Jack nor Algernon intend to manipulate anyone since the object of their lies (the fictitious Ernest and Bunbury) serve only their own personal pursuits without any intention to undermine their audience's decision-making process. It is only when the intent is linked to the goal and to a specific receiver through the marriage proposal that Jack and Algernon are forced to choose between disclosure (revealing their true names), or turning the deceit into truth (changing

their names). We can relate this to a covert amateur blogger's dilemma of either deceiving her peer consumers through non-disclosure or giving up the affiliation to embody the truth.

The second vertical level of meaning in Wilde's work is the level of discourse. The juxtaposition with the target domain operates on two levels. The receiver perceives the sincerity and of the trustworthiness of the source through the surface level proclaimed discourse, while she also perceives an underlying 'truth' which the receiver can build as an ideal or detect as reality. At the surface level, an evident analogy from the play to the conceptual framework of the study lies in the inferences the receivers make from the self-portrayal narrative of the deceivers.

ALGERNON (1. 114). You are the most earnest looking person I ever saw in my life.

CECILY (2. 151). There is something in that name that seems to inspire absolute confidence.

GWENDOLEN (1. 122). The only really safe name is Ernest.

The reader who believes the self-portrayal / disclosure blog context would not accept the product recommendation in the same way under a different scenario. It is the receiver who bestows trustworthiness on the source through her perception of the cues designed by the source. At the underlying level of truth, both Gwendolen and Cecily have built an ideal anchored in the name "Ernest". The ideal built by the receiver is more beautiful than real life, however the ideal is fragile. This cognitive concept is demonstrated in the study results; the inferences the reader makes of the external motives of the "amateur" beauty blogger, were found to have a negative (therefore potentially destructive) effect on the perceived sincerity of the source. As soon as the consumer intuits the external motives, the beautiful image of the sincere amateur beauty blogger is destroyed. Since the acceptance of the truth is unimaginable to Gwendolen and Cecily, Jack and Ernest sense, through their intuitive grasp of the principles of cognitive dissonance (Festinger 1957), that disclosure will entail the rejection of their marriage proposals. The only apparent solution for Algernon and Jack is to remove the dissonance by having themselves christened as Ernest. Similarly, the online source may intuitively sense the underlying mechanisms in the model. The empirical results can therefore be used to consider the blogger's perception of the effectiveness of the envisaged deceitful blog presentations versus the truth. The

perception of the effectiveness constitutes her external motive for the deceit.

The external motives of the deceivers are immediately accessible to the audience. Algernon poses as Ernest to meet Cecily, Jack omits to mention the existence of Cecily to Gwendolen so as not to jeopardize her acceptance of his proposal of marriage. Lady Bracknell's mercenary motives in ensuring "eligible" partners for her daughter and for her nephew, are evident to the audience (1. 124-126). In the same way, the study results show that the external motives of the blogger are immediately accessible to the reader through disclosure and through the professional status of the proclaimed beautician. The characters also deceive for internal motives. Jack and Algernon deceive Cecily and Gwendolen in the pursuit of their romantic passion. The initial deception by Jack in assuming the identity of the fictitious Ernest, in inventing the 'rogue brother' and by Algernon's "Bunburying" were for identity motives. In each case the deceit allows them to live according to their own ideal. The online source's own perceived truth, as an ideal identity for themselves or as a perceived benefit for the reader can constitute an internal motive for deceit. Thus, the articulation of the self-presentation of the deceiver, of the ideal perceived by the receiver, together with the perception each may have of the underlying truth and of the other's degree of knowledge of the underlying truth, reveal the motives for and condition the self-justification of the deceit.

Beneath the second strata of language lies the third semantic level of underlying meaning, conveyed by the contrasts in Wilde's work. At this deepest level, the horizontal map to the target domain is less immediate (Holyoak 1982). However, the analogies which tie the metaphor to the target at the superior levels we have discussed, provoke thought about how the concepts found at this level could apply. Lying to tell the truth (L. West, personal communication, 2013)⁴ is one such underlying concept, discernible throughout the work. This underlying theme is conveyed in three different ways at the three semantic levels of plot, discourse and meaning.

The most evident way in which Wilde communicates this message is through the denouement of the plot. In the final scene, it transpires that Ernest really is called Ernest and that he has a brother, Algernon. Therefore, Ernest has been earnest all along, unbeknown to himself, while Algernon was also telling the truth when posing as Jack's brother. The second way in which Wilde conveys the concept of lying to tell the truth is through the language of lies woven into the dialogue. Throughout Wilde's

work, the dialogues contrast the socially acceptable surface level discourse with the underlying, socially deviant messages which the characters exchange. When a character is ironic, he believes he is 'lying', however in many instances he is in fact telling the truth. Wilde uses the technique of placing oxymora and paradoxes in the speech to convey to the audience the underlying, true message as a perceptible shadow of the socially acceptable surface discourse. The surface discourse is the lie and the truth is the underlying message accessible through the semantic contrasts. Wilde is using the language of lies to deliver the true message. This linguistic, pragmatic technique allows Wilde to convey the underlying truth about the insincerity or the sincerity of the characters. The less sincere the character is, the more ironic contrasts to the truth and the more antonyms and paradoxes figure in the speech. On the other hand, when the character is in earnest, they 'talk straight'.

The third way in which Wilde uses lying to tell the truth is in the portrayal of the characters as opposed to their true identities. The overtly morally upright characters such as the "innocent" victims of the deceit, Gwendolen and Cecily (2.161), the "admirable" (1. 115) and "respectable" (3. 174) Miss Prism and Lady Bracknell, who is willing to override her social norm when the potential financial gain exceeds a certain limit, are those who most frequently reveal their insincerity through the language. While the 'deceivers' Algernon, and particularly Ernest are sincere in their exchanges with these same characters (3. 165). Ernest is only insincere when talking to Algernon. In this way, Oscar Wilde is using the characters' externally portrayed personalities as the lie which tells the truth about their inner identity, and indeed his own, all the while making a statement about the hypocrisy of the contemporary society. While the external motives of deceit are accessible in the play, the relationship to the truth is an internal, identity issue both for the source and for the audience. The lie is on the outside, on the surface, trivial, apparent, while the serious truth is on the inside, underneath the socially respectable discourse, hidden but remains perceptible through the deceiver's and the receivers' interpretation of and identification with it.

How Oscar Wilde uses the language, the contrasts and the character portrayal to articulate the lie with the truth stimulates thought about the processes operating in the target domain. The reader of the beauty blog can detect the external motives for deceit through her knowledge of persuasion tactics. However, she can also infer the sincerity of the blogger from the discourse. Readers may decide to reject the message, or to accept it for their own

identity driven reasons. For example, a reader may accept not totally convincing assertions about the benefits of beauty products because the idea of the youth preserving properties bolsters her ideal self-image. This raises questions about who, of the source and the reader is closest to the truth and what benefits the reader may draw from accepting what he consciously or unconsciously perceives as a persuasion tactic (Wei, Fischer and Main 2008). Moreover, the blogger may lie, as Jack/ Ernest do, without the intention to manipulate the audience, for her own internal identity driven motives, such as the level of expertise. The concept of lying to tell the truth therefore merits further exploration as we revisit the empirical study, with the aim of gaining insight into the bloggers perspective.

Our interpretation of the three semantic levels of the literary work (plot, style, meaning), has provided the new insights into the target domain which we have discussed *infra*. This has represented the horizontal mapping stage of the analogy. In the next section, we proceed to the problem-solving stage described in Holyoak's (1982) framework. This vertical process focusses on the target analog. We apply the salient insights which have emerged from the analogy to deploy three sequential analytical steps. First, we use the model at face-value to estimate the potential effectiveness of the contrasting truthful – deceitful blog contexts, according to the true identity of the online source as a professional (Jack) or as a layperson (Ernest). Second, the analogies from the discourse level of the allegory suggest that we further investigate the effectiveness under conditions where the blogger is not sincere in her product recommendations. Third, we consider how the concept of lying to tell the truth can be employed in conjunction with the study results to investigate the blogger's relationship with the truth, her self-justification for deceit and provide a rationale for positing the likelihood of the deceit.

The case study analysis following the semantic structure of the theatre script

Act 1 (Level 1-Surface). The effectiveness of truthful versus deceitful blog presentations

“The truth is rarely pure and never simple” (Algeron, 1. 116).

In this section, we examine the effectiveness of the ‘truthful’ versus the ‘deceitful’ blog presentations as shown in Table 4. The comparisons were not studied in the original paper and provide a deeper understanding of the target domain. The target study does not distinguish between a deceitful and a truthful blog presentation so, for the sake of our analysis, we assume that the true context is where the online source has an affiliation with the

recommended brand. Neither do we know whether ‘Agathe’ is truly a professional beautician or truly a layperson, therefore we consider both perspectives in turn. We consider conditions where the source is in earnest about the product recommendations. We define effectiveness as the level of favourable intentions towards the products. However, we also examine perceived sincerity since this would be important to the source in terms of reputation. The online source estimates the effectiveness of the tactic versus the truth based on her intuition of the mechanisms of the model, if she would not be found out. Therefore, in this step we assume that the reader does not detect the deceit.

In the ‘professional’ blog versions, Agathe presents herself as a qualified beautician. While the perceived expertise is higher in the case of a professional than in that of the layperson presentation (Table 1), we choose not to refer to the source as an ‘expert’. More accurately, we define ‘expert’ as referring to the level of true or proclaimed expertise regarding the recommended products. (Table 4 about here). Referring to the cases shown in Table 4, we order the discussion about the effectiveness of lying according to the ‘true’ professional (P) or layperson (L) status of the blogger and by ‘degree of deceit’ (1 omission, 2 commission, 3 omission and commission).

The effectiveness of deceitful marketing attempts of a professional blogger (cases P1, P2, P3 of Table 4).

First, we examine case P₁ where a professional beautician lies by omission about her financial interests in the recommended brand. This would be a risky tactic, exposing both the blogger and the firm to prosecution and to damage to their image. Moreover, readers are likely to be sceptical about the non-remunerated professional. The study supports this cautious view. The results (Table 1, Blog 4 versus Blog 3) show that disclosure will not make any significant difference to the level of inference readers make about the professional blogger's external or internal motivations. In the professional contexts, there is no significant relationship between the external motive inferences on perceived sincerity; remuneration is an accepted norm. However, the effect of the internal motivation inference on perceived sincerity is stronger when the professional beautician tells the truth than when lying by omission (Table 2, Blog 4 versus Blog 3). The professional beautician will be perceived as sincerer in her product recommendation if she discloses the affiliation than if she does not. In addition, the effects of perceived sincerity and perceived expertise on intentions toward the product are stronger under

professional transparency conditions than under the omission context (Table 3, Blog 4 versus Blog 3). The certainty of the disclosed remuneration disperses doubt. The study results therefore indicate that the professional beautician's product endorsements will be more effective if she discloses her financial interests than if she lies by omission. Next, we examine case P₂ where a professional beautician lies by commission, presenting herself as a layperson while remaining candid about the affiliation. The tactic would remain legal, if untruthful. The results (Table 1, Blog 4 versus Blog 2) support the online source in thinking that, as a layperson, her internal passion – sharing motives are more accessible to readers than under her true professional identity. While lying by commission makes no difference to the level of the external motivation inferences, due to the disclosure. If the blogger reveals her professional status, the internal motive will have a stronger positive effect on perceived sincerity than it would under layperson – disclosure conditions. In addition, if she lies by commission the external motive inferences from the disclosure will diminish the perceived sincerity while there will be no significant effect when telling the truth (Table 2, Blog 4 versus Blog 2). This result indicates that the transparent professional will be perceived as sincerer than a remunerated layperson, if she is able to convey her passion-sharing motivation. Whereas the disclosed remuneration will detract from the perceived sincerity if she poses as a layperson. This can be due to the apparent conflict of interests between the self-presentation as a layperson and remuneration. As in Wilde's character portrayals, the paradox is a semiolinguistic cue to the underlying truth. The perceived sincerity and the expertise conveyed by the disclosure (Table 1, Blog 4 versus Blog 2) will positively affect the intentions towards the product under both conditions (Table 3, Blog 4 versus Blog 2). Thus, the transparent professional beautician will be more efficient when undisguised, if she is perceived as earnest about her product recommendations.

Finally, we examine case P₃, where the professional beautician lies by commission and by omission in presenting herself as a non-remunerated layperson. This is the classic stealth scenario which might involve an online source, alone or in collusion with the brand, or a brand might produce an entirely fictitious 'flog'. The assumption is that due to the social media norm, a non-remunerated passion sharing layperson should appear sincerer and thereby more convincing than a remunerated professional. This view is initially supported by the significantly higher (lower) levels of internal

and (external) motivation inferences made by readers of the stealth blog as opposed to the truth (Table 1, Blog 4 versus Blog 1). As expected, the undetected stealth blogger is perceived as being more motivated by the desire to share a passion and less motivated by external incentives while the candid professional is perceived as being more motivated by remuneration and less by internal motives. However, the study results encourage the truthful context. The positive effect of the internal motive inference on perceived sincerity is stronger in the case of the professional – disclosure context than in the stealth context. Moreover, the external motive inference from the professional – disclosure presentation has no significant impact on the perceived sincerity of the endorsements. Yet if readers make inferences of external motives in the stealth scenario, it will significantly reduce perceived sincerity (Table 2, Blog 4 versus Blog 1). Thus, at the same level of ability to make her passion sharing motives accessible to the reader, the professional remunerated blogger will be perceived as sincerer if she tells the truth than in an undetected omission-commission stealth attempt, even more so if the reader conjectures that the 'amateur' content editor has financial interests. *In fine*, the effects of the perceived sincerity and of perceived expertise of the blogger on the product intention are stronger under truthful conditions than in the stealth scenario (Table 3, Blog 4 versus Blog 1). Therefore, the law abiding, candid professional is more efficient in telling the truth than by posing as a non-remunerated amateur, if she is perceived as sincere. In all the above cases it is not effective for the professionals to lie whether by omission or by commission or both, if they are able to convey their passion sharing motive and if the product endorsements are perceived as being earnest.

The efficiency of a layperson lying by omission and/or by commission about her remuneration and/or about her professional status (cases L₁, L₂, L₃ of Table 4).

A layperson could be tempted to lie by omission about her affiliation (case L₁) for fear that scepticism about her passion-sharing motives will make the recommendations less credible and less convincing. The case study shows that omitting to reveal the conflict of interest will not increase the level of inference the readers make of the lay-blogger's internal passion sharing motives (Table 1, Blog 2 versus Blog 1). However, the significant positive effect of the internal motivation inferences on sincerity is greater under layperson omission conditions than when telling the truth. In addition, the negative effect of external motivation inferences

on perceived sincerity will be weaker if the lay-blogger is covert (Table 2, Blog 2 versus Blog 1). Thus, through the effects of the motive inferences on perceived sincerity, the layperson blogger is founded in fearing that if she reveals her financial interests, her recommendations will be perceived as less sincere. The effect of perceived sincerity on product intentions is positive and not significantly different under covert or truth conditions. While the positive effect of perceived expertise conveyed by disclosure is offset by the low average in the layperson context (Table 3, Table 1, Blog 2 versus Blog 1). Overall, the study results indicate that a layperson will be more efficient in lying by omission than in disclosing the affiliation.

An affiliated amateur beauty enthusiast might lie by commission in presenting herself as a trained beautician (case L_2). She may hope that the professional status would increase the cogency of her arguments through the conveyed expertise, all the while making her remuneration more acceptable. As discussed *infra* (Table 4, case P_2), the comparison of the study results between Blog contexts two and four shows the professional self-presentation to be more effective. The transparent lay-blogger's recommendation will be more effective if she lies by commission.

If the affiliated lay-blogger masquerades as a non-remunerated professional (case L_3), the results of the study are mitigated. Telling the truth or lying makes no difference to the mean level of external motivation inferences (Table 1, Blog 2 versus Blog 3). The external motivation of the candid layperson is accessible both through the disclosure of her financial interests and through the commercial, professional cue. However, under truthful layperson – disclosure conditions, the external motivation inferences significantly decrease perceived sincerity as opposed to no effect under deceitful non-remunerated professional conditions. Moreover, the positive effect of the internal motivation inference on the perceived sincerity of the transparent lay-blogger's recommendation is weaker than when lying by omission and by commission (Table 2, Blog 2 versus Blog 3). Nevertheless, the effect of the perceived sincerity on the product intention is higher in the case of the candid layperson than in the deceitful scenario. While the, albeit lower, perceived expertise in the truthful context (Table 1, Blog 2) will contribute to efficacy (Table 3, Blog 2 versus Blog 3). We suggest that this mitigated result is due to the equivocal presentations of the remunerated layperson and of the non-remunerated professional, considering the social and trade norms. Thus, the affiliated layperson is more certain to be efficient if she lies by omission or by commission but not both.

From the legal and ethical standpoints, the greater efficiency of the covert layperson versus disclosure poses a challenge. On the other hand, an amateur claiming false professional qualification could represent a health and safety danger for consumers and consequently put brands' reputations at risk. Moreover, amateur bloggers are potentially difficult for firms to control.

At this, surface level stage of the analysis of the reported study results, we derive the following analogic understanding. Jack (the true professional) is more efficient in being truthful than in deceiving, if he is perceived as sincere. While Ernest (the true layperson) would be more tempted to lie by omission or by commission, but not both. Below, we revisit the data in the light of the second, semantic level of the theatre script. This, second interpretive level of the case study articulates the internal motivations of the deceiver with the receiver's perceptions of them.

Act 2 (Level 2-Discourse). The effectiveness of the truthful versus the deceitful blog presentations when the blogger is not Earnest.

“In matters of grave importance, style, not sincerity is the vital thing” (Gwendolen, 3. 165). This section presents an extension of the model (Holyoak 1982) under conditions of low internal motive inferences, not examined in the 2014 paper. Wilde's second semantic level reposes on the interpretation the receiver makes of the discourse, dependent on the receiver's own ideals and motives. The study results show that the effectiveness of the product recommendation depends on the interpretation the reader makes of the semiolinguistic cues in the blog presentation. The horizontal map to the study therefore operates at the level of the inferences the reader makes of the internal and external motives of the blogger. Up until this point, we have considered the effectiveness of the truthful versus the deceitful blog contexts on the basis that the product recommendations are sincere. If the product recommendations are not in earnest, the internal passion-sharing motive may be expected to be less clear. It is likely that the reader would be able to detect this, just as the audience can detect through the style of the discourse when the character of the play is sincere. Thus, the analogy prompts us to apply the model to consider the effectiveness of the endorsements at low internal inference levels. Let us re-examine the guerrilla marketing context (case P_3 of Table 4). Considering the effects presented in Tables 2 and 3, the truthful blog presentation (Blog 4) prevails over the stealth presentation (Blog 1). However, the position is reversed at low internal passion-sharing motive inference levels. (Figure 1 about here).

Figure 1a shows the perceived sincerity predicted by the internal motivation inference for the stealth and for the truth blog contexts where the external motivation inference is fixed at four, the median value for the professional-disclosure blog (Blog 4). If the stealth deception (Blog 1) is effective, the external motive inference should not likely be higher than four in the seven-point scale. In the case of the truthful presentation (Blog 4), the level of external motive inference is accessible from the disclosure and, due to the professional self-presentation, it has no significant effect on the perceived sincerity. Although, at the median level of the external motive inference, the truth context generates higher perceived sincerity irrespective of the level of internal motive inference, there is only a marginal gap at the higher end of the internal inference scale. In addition, when considering the perceived sincerity predicted from the respective median values of the stealth and the truth internal inferences as shown by the bullet points, the stealth solution performs better than the truth.

In Figure 1b, the predicted values of perceived sincerity are carried over from Figure 1a to infer the levels of positive intentions towards the product. When perceived sincerity is below the values predicted by the median internal inferences in the respective blogs, the stealth presentation proves more effective than the truth. If the blogger is not in earnest about the products she is recommending, the internal motive inferences are likely to be less accessible than they would be if she were sincere, thereby lowering the perceived sincerity such that the stealth context is more persuasive than the truthful presentation. This provides a clear financial incentive for adopting stealth tactics if the source is insincere about the product endorsements. On the other hand, at high levels of passion sharing, the increased earnestness about the products would favour the professional disclosure context. The externally motivated commercial source would be more tempted to commit a stealth attempt when the product recommendations are less sincere. Whereas the earnest professional blogger would be more founded in telling the truth. If Jack is insincere, he is more efficient if he poses as Ernest. If he is in earnest, he is better off telling the truth.

Act 3 (Level 3 – Meaning). The opportunity for and the self-justification of deceit

“The vital Importance of Being Earnest” (Jack, 3. 180). At the third, pragmatic level, we resolve our central research problem. We use an entirely new concept, lying to tell the truth, imported from the analogy. The results presented in table 5 reverse the perspective of the original research

from the consumer to the blogger.

As lying is wrong, the independent blogger would have to overcome a moral inhibitor to lie to her readers, perceived as honest citizens. On the other hand, there is no such internal inhibitor in the case of a stealth attempt by an advertiser. A stealth attempt or insincere product recommendations on the initiative of the brand alone, or in collaboration with a blogger, will be externally motivated. While deceit on the initiative of the independent content editor can also be self-justified through internal motivation.

People can self-justify deceit for the common good. Journalists self-justify using stealth tactics to deceive sources as they are often seen as being morally less upright than the readers who should be defended at all costs (Lee 2004). A lay-blogger may justify lying to the advertiser about her professional status to restore the balance of power between herself and the firm. Or she may be tempted to lie about her professional status for identity driven motives if she is temporarily out of a job or if she believes she has professional-level expertise. If the online source earnestly feels that the product recommendation is in her readers’ best interests, she may choose not to reveal her financial interests for fear that consumers would be less inclined to follow her advice, or she may pass herself off as a trained beautician to make her arguments more cogent. In both cases a passion sharing motive could cause her to lie, notwithstanding financial gain. Since lying by commission is perceived as more wrong than lying by omission, it is more likely that a lay content editor would be tempted to omit her financial interests than that she would lie about her identity or about the product recommendations. It follows that the externally and or internally motivated lay-blogger could more easily self-justify lying by omission than by commission, while the externally motivated professional blogger or stealth advertiser can deceive by omission and or commission through the lack of internal inhibition in a professional context. However, in considering the concept of lying to tell the truth, we propose that the level of expertise of the blog editor can sway these principles.

Lying to tell the truth.

The more certain an individual is about something, the less likely they are to lie about it since they are more conscious of their act. On the other hand, when people are less sure about the facts and deception is in their best interests, they are inclined to “fudge”. In other words, they lie or omit based on the idea that what they are saying may turn out to be the truth. Leblais and Bonnefon (2013) demonstrate this

principle empirically. To this extent, fudging is a way for the liar to give him or herself the benefit of the doubt. In the context of the online source, fudging could occur if the content editor both has a financial incentive and lacks expertise about the products she is recommending. She may make assertions about the products of which she is not certain but which she imagines could turn out to be true. On the other hand, a blog editor with expert product knowledge should be less likely to make insincere recommendations. The deceitful expert would need a different self-justification, such as a disregard for consumers as potential liars themselves. An independent, expert, blog editor would therefore be unlikely to make false product endorsements to honest readers. While an amateur blog editor may fudge.

(Table 5 about here).

Drawing on this rationale, Table 5 examines the relative effectiveness of the different deceitful presentation narratives (professional status, level of expertise) according to the nature of the deceit compared to the underlying truth. From this summary we can appreciate the strength of the temptation to deceive. In columns i and ii of Table 5, we use the model to infer the effectiveness of the deceitful tactics versus the truth at high (i) or low (ii) inference levels. In column iii, we further consider the opportunity for “fudging” insincere product recommendations. To estimate the effectiveness of deceit compared with the truth, we apply the same method as previously shown in Figure 1 to all of the cases in Table 5. We carry over the perceived sincerity predicted from the internal motive inferences to infer the level of the reader’s favourable product intentions.

The level of opportunity to fudge insincere product recommendations (column iii) is posited as relatively high in all the ‘true amateur’ cases where product expertise is low. On the other hand, the level of opportunity to fudge is posited as low in all the ‘true expert’ cases where product expertise is high. Below, we use table 5 to discuss the likelihood and the motives for deceit according to the true identity and to the level of expertise of the online source. The shaded cells in columns i-iii of table 5 show the conditions under which the underlying mechanisms of the model infer the likelihood of digital deceit to vary.

The likelihood of deceit by a lay-blogger (cases a-f of Table 5).

Considered together, columns i, ii and iii of Table 5 offer the degree of risk of deceit under each of the six conditions. The layperson case which affords the broadest spectrum for deceit is that of the affiliated, amateur layperson lying both by omission and by

commission (case c). Case c is the only case where the effectiveness of the deceit is equivalent to that of the truth, independent of the level of passion sharing inferences (columns i and ii). Whether the source is sincere or not about the product endorsements, lying is as effective as telling the truth. Moreover, due to the lack of expertise, the opportunity for fudging insincere product recommendations is relatively high (column iii). Case c is therefore a plausible situation where the misguided, amateur lay-blogger may be tempted to self-proclaim false professional qualifications while at the same time making uncertain claims about the product benefits for undisclosed financial gain. However, the enlightened amateur blogger will fear consumer scepticism about a professional not having any affiliation with the brands she recommends. As previously shown, under professional/non-disclosure conditions, the perceived expertise is lower (Table 1) than when the affiliation is disclosed, and has no effect on intentions towards the product (Table 3). Therefore, in case c, the risk of deceit is posited as moderate. In the remaining layperson cases, either the deceitful, insincere product endorsements are less effective than the truth (cases a, b) or the opportunity for fudging is low (cases d, e, f). Therefore, only lay-bloggers who are in earnest about the product endorsements should be tempted by the greater effectiveness of non-disclosure (cases a, d) or of falsely claiming professional status (cases b, e). Thus, we posit that the layperson who deceives by omission or by commission would be most likely to do so with earnest, passion sharing motives, through fear that either disclosure or her ‘amateur’ status (but not both) would make her recommendations less cogent. When Ernest is insincere his readers will detect the insincerity. They may choose to believe him for their own identity driven motives. When Ernest is earnest he may lie by omission or by commission to better tell what he believes is the truth.

The likelihood of deceit by a professional online source (cases g-l of Table 5).

When the product endorsements are sincere, and the professional online source is able to convey her passion sharing motives (column i), she is always more efficient in telling the truth. Therefore, in addition to the legal obligations and the moral inhibitor, sincere professionals, certain about the product benefits, should have no external motive for deceit. If the professional blogger’s endorsements are insincere (column ii), this could occur either as fudging through lack of expertise about the products (cases g, h, i) or, in the case of a true expert, through a cynical disrespect of her readers

(cases j, k, l). Both cases are unlikely. A professional beautician would have the product expertise, unless the products are new to her or unless the brand makes false claims which the beautician believes. In addition, it is unlikely, that an independent professional would hold her readers in disregard. Therefore, we posit a moderate level of risk of deceit in cases g to k. Cynicism is possible however, in the case of a fictitious blog. Since the advertiser has expert knowledge of the firm's own products, stealth 'flogs' belong in case l. If, through cynicism, the fake blog message is not delivered with earnestness, then deceit is more effective than the truth. The unscrupulous, insincere expert has a clear motive for going under cover. Overall, a true independent professional is more likely to be earnest than to be insincere and more efficient in telling the truth than in being deceitful. While a fictitious blogger could efficiently lie. Either Jack is reliable, respectable John. Or he is the fictitious Bunbury; he is himself the lie.

The Denouement

The research focus of this paper is to elucidate in which contexts third party bloggers are most likely to produce intentionally deceitful content. For the intention to be carried out, the blogger must first evaluate the efficacy of the tactic. The higher the perceived effectiveness of the deceitful tactic, the greater the temptation to deceive. The original (2014) authors' paper shows that the efficacy differs according to the trade professional or consumer peer social norm adopted by the blogger and according to the accessibility of the internal and external motives to the blog followers. This paper provides a deeper and more accessible understanding of the results through the comparison of the cases shown in Table 4. Flogs by cynical professionals (Bunburies) and deceitful online content by Earnest lay-bloggers are more effective in generating product intentions than the truth. While the transparent, sincere professional (John) is the most efficient of them all.

The analogy further led to examining the comparative effectiveness of the deceitful contexts under high and low internal motive inference conditions, not considered in the original paper. Finally, the new concept of lying to tell the truth, imported from the analogy, completes the reversal of the perspective of the original work from the consumer to the blogger. The danger of digital deceit is particularly acute in the case of genuine amateur enthusiasts who may fudge inaccurate statements about the products. Ego centric motives, the perceived superior effectiveness of deceitful tactics, combined with low product expertise are difficult factors for managers to control. The "uberization" of social media

affiliations is under way through open access dot.com intermediaries and e-retailer social advantage programs (Kamerer 2015). This can massively increase the numbers of lay content editors at risk of causing damage to their own and brands' reputations through non-disclosure and fudging. The case study results suggest that one way of setting amateur lay-bloggers on the right track is through controlled professionalization. The objective is that, as the blogger's income from affiliation increases, she should adopt the professional trade norm rather than the ambiguous social influencer norm. The work provides supporting information that brand managers should accompany the blogger's development from amateur lay person status through to the expert professional. In the first stage, they should educate amateur online sources about the products so that they are not tempted to fudge. When the product knowledge is acquired, they can certify lay-experts. The certification will confer the perceived expertise which the study demonstrates increases the effectiveness of transparency. In addition, the certified recognition of the lay-blogger's expertise will remove the internal motive for lying by commission and justify the disclosure of the affiliation through the professional norm. People can lie because they fear the reaction of others if they speak the truth. Educating individual bloggers about the effectiveness of the perceived expertise can remove that fear without lessening the passion. The sincere, transparent professional is always more efficient than if she were to lie, even more so for the greater earnestness in the product recommendations. Overall, the results encourage brands to professionalize their affiliated online sources, conferring expertise and making the disclosed remuneration acceptable, while convincing them that the products are in the end users best interests, so that the internal passion sharing motive will be high and leverage the greatest efficiency.

Social influencers are increasingly under contract with agencies mediating the relationship with the brand (Holmes 2015). Bloggers may even become agents themselves (Feret 2016). Increased financial rewards have been shown to « crowd out » internal motivation (Anghelcev, 2015 cited by Burns 2016). The case study analysis shows that at lower than median internal motive inference levels, the professional blogger is more efficient in deceiving by omission or by commission. Thus, as external motivation increases, the professional influencer will be more tempted to deceive. Moreover, as Kamerer's (2015) study shows, influencer blogs tend not to be as transparent as FTC guidelines

would require. It is therefore the brand manager's responsibility to counter these dangers through establishing and managing direct relationships with the bloggers.

(Figure 2 about here).

Figure 2 synthesizes, from the bloggers perspective, the processes inferred from the discussion of the results *infra*. A direct relationship with the brand will reduce the risk of digital deceit through education. The brand certification program will reduce the perceived effectiveness of the deceit, increase the perception of the risks of deceit and lower the propensity to fudge through the acquired product expertise. A fully agency mediated relationship between the blogger and the brand bears risks of the blogger becoming herself influenced by the conflict of interest between the advertising and the independent editorial norms.

Finally, table 5, together with the character insights from the analogy provide the foundation for a typology of social media content editors to be managed as individuals rather than as mediated influencers. John is the transparent, honest trade professional, Ernest is the remunerated lay-blogger, tempted to lie for identity and passion sharing driven internal motives. Algernon is the cynical professional writing Bunbury, the "flog". These different characters require different treatments. Neither can one ignore the complicity of Gwendoline and Cecily, the followers of the beauty blog who may enter the deceit for their own benefits. They may choose to ignore high external motive inferences to keep intact the beautiful image of the passionate peer. Touch the image with an overtly explicit disclosure statement and it will be gone. A subtler consumer protection measure would be to audit online the level of external inferences consumers make of affiliated influencers, with the objective of monitoring a threshold beyond which the Persuasion Knowledge Model becomes inoperative.

In this paper, we have used only some of the concepts vehicled in the work of Oscar Wilde. Some examples are the concept of self (ideal, proclaimed - portrayed, perceived), relationship to the truth (proclaimed, perceived, underlying), self-justification of deceit, lying to tell the truth, certainty versus doubt, social norms. Our choice of "The Importance of Being Earnest" is justified by its multilevel semantic depth and by the profound understanding Wilde has of social interaction. An understanding that we demonstrate can be grounded with empirical research. Marketing scholars have begun to use art to stimulate thought (Ladwein 2017). The precise

juxtaposition of the theatre script with the target domain supports the potential of the literary arts as research material.

The authors received no financial or technical assistance for this paper.

The authors thank Reviewer 1 for the kind and pertinent comments which helped finalize this paper. They also thank Claire Micheaux for her insightful remarks on an earlier version.

References

- Brunk, Katja H. (2010), "Exploring Origins of Ethical Company/Brand Perceptions - A Consumer Perspective of Corporate Ethics," *Journal of Business Research*, 63 (3), 255–262.
- Burns, Kelli S. (2016), "How the top social media brands use influencer and brand advocacy campaigns to engage fans," in *Public Relations and Participatory Culture: Fandom, Social Media and Community Engagement*, Hutchins Amber and Nathalie T.J. Tindall, eds. New York : Routledge, 58-70.
- Campbell, Margaret C., Gina S. Mohr, and Peeter W. J. Verlegh (2013), "Can Disclosures Lead Consumers to Resist Covert Persuasion? The Important Roles of Disclosure Timing and Type of Response," *Journal of Consumer Psychology*, 23 (4), 483–495.
- Evans, Nathaniel J. and Dooyeon Park (2015), "Rethinking the Persuasion Knowledge Model: Schematic Antecedents and Associative Outcomes of Persuasion Knowledge Activation for Covert Advertising," *Journal of Current Issues & Research in Advertising*, 36 (2), 157–176.
- Federal Trade Commission (2014), "Guides Concerning the Use of Endorsements and Testimonials in Advertising," (accessed March 21, 2016), [available at <http://www.ecfr.gov/cgi-bin/tex>

TABLE 1

Means Tests for the Four Experimental Blogs

	External motive inference M (SD)	Internal motive inference M (SD)	Perceived Sincerity M (SD)	Perceived Expertise M (SD)	Product Intention M (SD)
Overall	3.73 (1.65)	5.51 (1.42)	4.63 (1.32)	3.80 (1.54)	3.92 (1.51)
<u>Blog 1</u> (n=106)					
Layperson/Non-disclosure	3.42 (1.73)	5.89 (1.28)	4.87 (1.32)	2.86 (1.19)	4.00 (1.51)
<u>Blog 2</u> (n=81)					
Layperson/Disclosure	3.44 (1.57)	5.88 (1.27)	4.90 (1.23)	2.91 (1.14)	3.94 (1.47)
<u>Blog 3</u> (n=82)					
Professional/Non-disclosure	4.06 (1.62)	5.32 (1.28)	4.16 (1.23)	4.61 (1.26)	3.89 (1.43)
<u>Blog 4</u> (n=114)					
Professional/Disclosure	3.99 (1.58)	5.05 (1.58)	4.56 (1.36)	4.74 (1.36)	3.84 (1.60)

Levene's tests validated equal variance for all variables. The Scheffé Post Hoc tests show significant differences in mean external motive inference between the contexts [1 and 3] and [1 and 4]. Mean internal motive inferences and perceived expertise are significantly different between [1 and 3], [1 and 4], [2 and 3] and [2 and 4]. Significant differences in mean perceived sincerity exist between the contexts [1 and 3] and [2 and 3]. There were no significant differences in mean product intentions between the blog contexts.

TABLE 2

The Effects of the External and Internal Motive Inferences on Perceived Sincerity

dv = Perceived Sincerity	External motive inference β	Internal motive inference β	F	R²
<u>Layperson</u>	-.23**	.43**	43.83**	.32
Blog 1: Layperson/Non-disclosure	-.18*	.55**	36.00**	.41
Blog 2: Layperson/Disclosure	-.31**	.27*	12.16**	.24
<u>Professional Beautician</u>	.05	.59**	48.51**	.34
Blog 3: Professional/Non-disclosure	.05	.49**	12.13**	.24
Blog 4: Professional/Disclosure	.08	.70**	45.03**	.45

* p < .05; ** p < .01

β standardized regression coefficients for each of the four experimental blog contexts

TABLE 3

The Effects of Perceived Sincerity and Perceived Expertise on Product Intention

dv = Product Intention	Perceived Sincerity β	Perceived Expertise β	F	R²
<u>Layperson</u>	.27**	.26**	16,82**	.16
Blog 1: Layperson/Non-disclosure	.25*	.08	4.10*	.07
Blog 2: Layperson/Disclosure	.32**	.53**	26.40**	.40
<u>Professional Beautician</u>	.32**	.24**	24,87**	.21
Blog 3: Professional/Non-disclosure	.22*	.15	3.17*	.07
Blog 4: Professional/Disclosure	.38**	.28**	25.91**	.32

* p < .05; ** p < .01

β standardized regression coefficients for each of the four experimental blog contexts

TABLE 4

The Six Cases of Digital Deceit which are Examined

Deceitful Presentation	Blog 1 Layperson/ /Non-disclosure	Blog 2 Layperson/ Disclosure	Blog 3 Professional/ Non-disclosure	Blog 4 Professional/ Disclosure
Underlying Truth				
Blog Professional/Disclosure	4 Omission and Commission (P ₃)	Commission (P ₂)	Omission (P ₁)	
Blog 2 Layperson/Disclosure	Omission (L ₁)		Omission and Commission (L ₃)	Commission (L ₂)

TABLE 5

Examination of the Risk of Deceit

Case	Underlying Truth		Nature of the Deceit (Case # from Table 4)	Effectiveness of the Deceitful versus the Truthful Context		Risk of Fudging Insincere Product Endorsements (iii)
	Truthful Blog #	Product Expertise		For high internal motive inferences (i)	For low internal motive inferences (ii)	
a	Blog 2 Layperson/ Disclosure	Amateur	Omission (L1)	more	less	High
b			Commission (L2)	more	less	High
c			Omission and Commission (L3)	equivalent	equivalent	High
d		Expert	Omission (L1)	more	less	Low
e			Commission (L2)	more	less	Low
f			Omission and Commission (L3)	equivalent	equivalent	Low
g	Blog 4 Professional/ Disclosure	Amateur	Omission (P1)	less	more	High
h			Commission (P2)	less	more	High
i			Omission and Commission (P3)	less	more	High
j		Expert	Omission (P1)	less	more	Low
k			Commission (P2)	less	more	Low
l			Omission and Commission (P3)	less	more	Low

Notes:

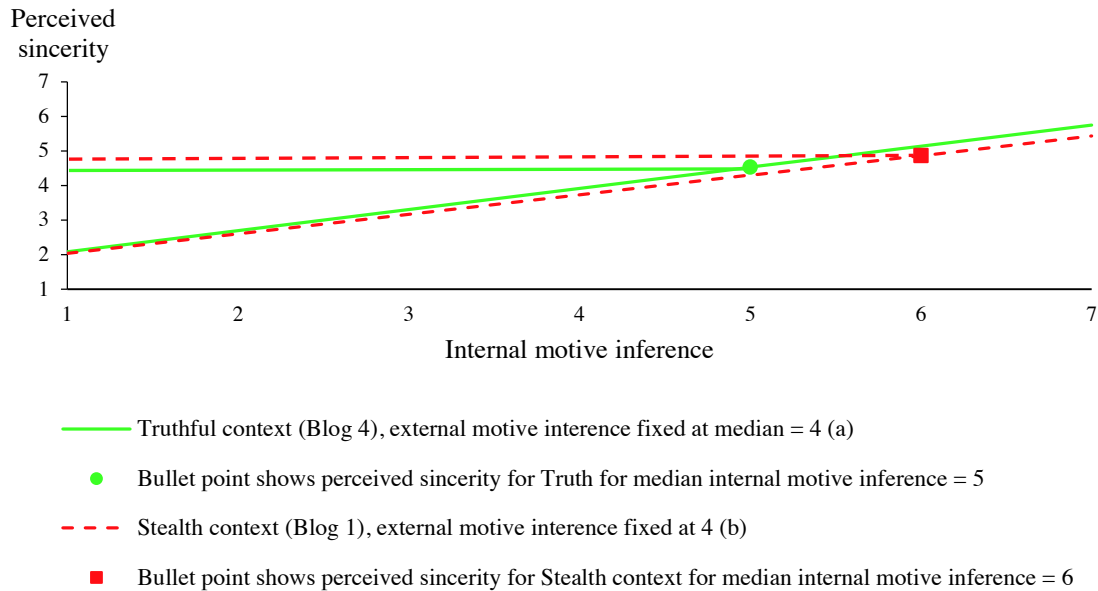
- (i) Evaluation of effectiveness based on product intentions predicted from perceived sincerity for median external motive and for median and above median value internal motive inferences.
- (ii) Evaluation of effectiveness based on product intentions predicted from perceived sincerity for median external motive and for median and below median value internal motive inferences.
- (iii) Opportunity for fudging insincere product recommendations is posited as low for expert content editors and high for amateur content editors.



Conditions presenting a high risk of digital deceit, in consideration of columns i, ii and iii.
 Conditions presenting a moderate risk of digital deceit, in consideration of columns i, ii and iii.
 Conditions under which a 'flog' is more effective than the truth.

FIGURE 1

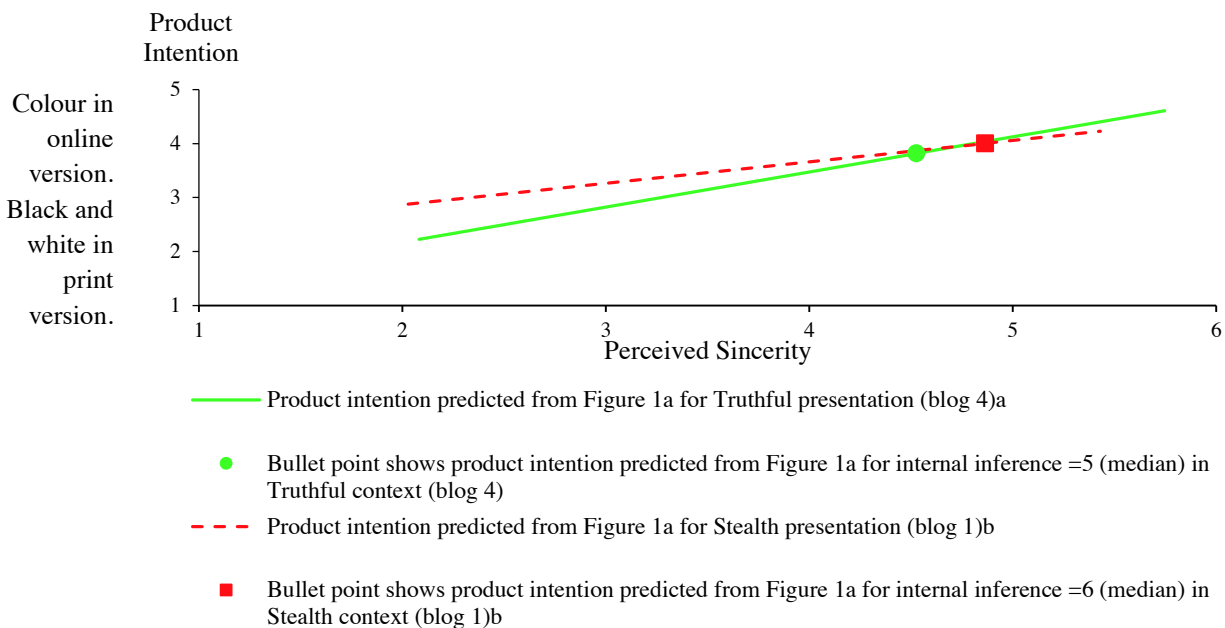
1a Perceived Sincerity Predicted from Internal Motive Inference under Truth (Professional/Disclosure) versus Stealth (Layperson/Non-disclosure) Conditions



Notes:

- a. From regression results for blog 4; $y=1.15+.08a+.61x$, where a = external motive inference fixed at 4
- b. From regression results for blog 1; $y=1.99-.132a + .57x$ where a = external motive inference fixed at 4

1b Product Intention Predicted from Perceived Sincerity under Truth (Professional/Disclosure) versus Stealth (Layperson/Non-disclosure) Conditions

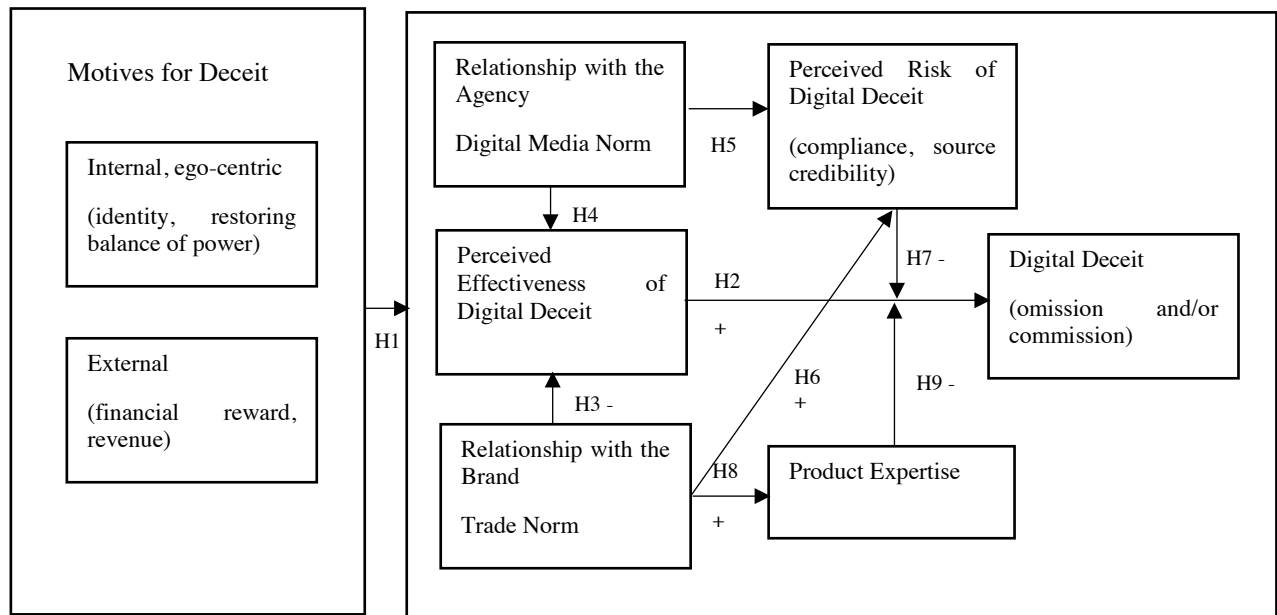


Notes:

- a. From regression results for blog 4; $y=.88+.65x$
- b. From regression results for blog 1; $y=2.07+.40x$

FIGURE 2

The influence of stakeholder relationships with the affiliated online source on the propensity of digital deceit



- H1. The higher the internal and/or external motives for deceit, the higher the propensity to deceive.
- H2. The greater the perceived effectiveness of digital deceit, the higher the propensity to deceive.
- H3. The adoption of the Trade Norm as a professional beautician and/or through the Brand education / certification program reduces the perceived effectiveness of the deceit.
- H4. When the external motivation increases through a contractual relationship with Influencer Agencies or dot.com sites, the perceived effectiveness of digital deceit will increase.
- H5. The direct relationship with the Agency /digital Media Norm will affect the perceived risk of digital deceit, positively or negatively according to the Agency's policy.
- H6. The adoption of the Brand /Trade Norm will increase the perceived risk of digital deceit through compliance and education.
- H7. Perceived risk of deceit will moderate (reduce) the effect of perceived effectiveness on the propensity to carry out the deceit.
- H8. The direct relationship with the brand will increase product expertise.
- H9. Product expertise will moderate (reduce) the effect of perceived effectiveness on the propensity to deceive.

Corporate e-reputation management on LinkedIn: the owned and earned media mix

Abstract

LinkedIn has become a key communication tool for organizations establishing itself as the first professional social network in the world. We conducted a critical analysis of e-content on LinkedIn Business Pages and LinkedIn Personal Pages on a sample of 1 000 employees (members of LinkedIn) and on a sample of organizations from the automobile sector. This analysis highlights owned and earned media and enables to develop a typology of LBP and LPP e-content through four indexes: the index of information, the index of visibility, the index of quotation and the index of participation. These formative constructs are new antecedents of corporate e-reputation within the neo-institutional approach of reputation. Thanks to this analysis of the owned and earned media uses, relevant recommendations with reference to the strategic management of corporate e-reputation have emerged.

Key words: professional social networks, LinkedIn, e-reputation, owned media, earned media

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Introduction

Inside social media, professional networks have become major marketing tools. LinkedIn is the first professional social network worldwide (more than 500 million members in 2017¹). It also ranks first in France (14 million members in 2017²). LinkedIn is playing an important role within digital strategies of communication, of recruitment, of HR marketing; and corporate e-reputation is fundamental for these strategies. All activity sectors, all organizations' departments and more and more professions are on LinkedIn nowadays. This professional social network offers new opportunities to managers allowing them to appeal internal and external stakeholders and to generate interactions. Managers have understood what is at stake and use LinkedIn so as to grow the prominence of their organization by creating LinkedIn Business Pages (LBP). Although the influence of LinkedIn gets bigger every year, research works have been more focused on mass networks such as Facebook (Pronschinske, Groza and Walker, 2012) and Twitter (Vignolles, Galan and Munzel, 2016). These digital tools reinforce the traditional communication of organizations (Viot, 2010). Firms deploy their digital presence and work on their corporate e-reputation thanks to broadcasted messages and their content (Deephouse, 2000). On professional social networks (PSN), companies have three types of media at their disposal; their management is complex. This typology includes (1) owned media (website, official blog, LinkedIn Business Pages, for instance), (2) paid media (display) and (3) earned media (stakeholders' e-content, in particular

¹Source: LinkedIn official figures, available on LinkedIn website, <https://press.linkedin.com/fr-fr/about-linkedin>, visited in November 2017.

² Source: LinkedIn official figures, available on LinkedIn website, <https://press.linkedin.com/about-linkedin>, visited in November 2017.

employees' e-content) (Décaudin, Digout and Fueyo, 2013). According to this typology and regarding the neo-institutional approach of reputation (Rindova et al., 2005), the management of these media on LinkedIn gets a strategic dimension for three reasons:

- the LBP belongs to the owned media of the organization;
- through its LBP, a firm can buy display ads on LinkedIn;
- and through its LBP, a firm can manage earned media contents generated on this LBP and also those generated on LinkedIn Personal Pages (LPP) linked with the organization (particularly employees' LPP).

Managers can benefit from these opportunities to

build corporate e-reputation by creating, increasing and keeping up relationships between the organization and its different stakeholders. These actions reflect traditional decisions and correspond to strategies of conquest and loyalty.

This research is interested in analyzing the strategic issues that managers can implement to handle the owned and earned media of their company in order to build corporate e-reputation on LinkedIn. In that way, the definition of e-reputation and its concerns are developed within the literature review. Then we present the research methodology that allows us to conduct the critical analysis of organizations' uses on their LinkedIn Business Pages as well as the critical analysis of employees' uses on their LinkedIn Personal Pages. The results are discussed in the course of their presentation; they make emerge a typology of LBP and LPP e-content through four indexes (index of information, index of visibility, index of quotation and index of participation). According to these results we invite managers to take into account this typology in digital marketing strategy to achieve the construction of corporate e-reputation. Finally, contributions, limits and research issues are exposed in conclusion.

Corporate e-reputation: an « intangible asset » to build

Because the web has become social, the reputation of an organization is subject to more risks and its management is becoming more complicated. However, opportunities do exist to build corporate e-reputation and tools to protect it are being created. In this literature review we present the concepts of reputation and e-reputation. We also describe the theories we take on. And we underline the new issues organizations have to cope with regarding the management of their corporate e-reputation.

Reputation is at the core of organizations' success. Reputation is an "intangible asset" (Drobis, 2000; Miles and Covin, 2000; Goldberg et al., 2003; Dolphin, 2004), an "economic asset" (Fombrun, 2001) and has a real impact on an organization's success (Roberts and Dowling, 2002).

The neo-institutional theory defines reputation as a socially built perception. This perception is the result of information exchanges and social influence among various stakeholders interacting in an organizational field (Fombrun and Shanley, 1990; Rao, 1994; Rindova and Fombrun, 1999; Rindova et al., 2005). This approach underlines the major role of the collective awareness of an organization's existence and relevancy in a given organizational field (Fombrun, 1996; Rao, 1994). Corporate reputation is a construct redefined by stakeholders in accordance with the decisions to be evaluated

(Puncheva-Michelotti and Michelotti, 2010).

The integrating model of Stuart (1999) determines the position of corporate reputation at the end of a long process that includes corporate identity and corporate image (Barnett, Jermier

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and Lafferty, 2006). Corporate identity is built by the employees' and managers' perception about their organization. It deals with an internal outlook. Organizations create their corporate identity in an independent way (Argenti, 2003). Corporate image is made by external stakeholders' perception about the organization. Corporate reputation is the aggregation of these both perceptions. The stakeholders' theory (Bitectine, 2011) and the intellectual capital theory (Bontis, 1998; Edvinsson and Malone, 1997) show the necessity to reckon with all the stakeholders – not only the consumers.

The digital environment empowers reputation

Corporate e-reputation is considered as the part of reputation derived by electronic contacts (Chun and Davies, 2001). "Corporate e-reputation is built by stakeholders' judgment broadcasted on all digital platforms according to their expectations, their beliefs, their values and informational exchanges (e-WOM), and stem from their perception of the amount of an organization's actions, performances and behaviors since its creation" (Fueyo, 2015).

The communication theory (Chernatony de, 1999) and the networks theory (Stuart, 2000) highlight the importance of interactions between an organization and its stakeholders. The value of a social network is based on the extent of its use (Thorbjornsen, Pedersen and Nysveen, 2009). The stakeholders' weight has not to be underestimated. As explained by the theory of resource (Hamori, 2003), the competitive advantage is at the core of the organization: the human capital. Employees are vectors of corporate reputation. Thanks to an appropriate internal communication, they are able to become ambassadors delivering a positive message about their organization inside their digital ecosystem. By their speech employees influence consumers' judgement about an organization (Chernatony de, 1999). This phenomenon of emotional contagion as defined by Bettencourt, Gwinner and Meuter (2001) states that the more the employees have a positive perception of their organization, the more they are going to influence positively the customers' perception. It is necessary to standardize the perceptions of internal and external stakeholders to avoid crises (Dowling, 1994; Hatch and Schultz, 2001). Corporate e-reputation requires a specific management and particular skills that get used to the web inherent features. The new applications of social web make every stakeholder able to take part

in the construction of corporate e-reputation. Internet users are active influencers and a powerful online information relay. These social networks are tools of which content, opinions, ideas and media can be shared (Nair, 2011). The word-of-mouth effect is multiplied (Fogel, 2010; Sago, 2009) as its influence goes over family and friendly circles (Kiecker and Cowles, 2002). The efficiency of message flow is intensified. Indeed, the message is broadcasted faster, costs less and impacts in a more lasting manner (Trusov, Bucklin and Pauwels, 2009).

The role of owned and earned media

According to Deephouse (2000), media influence knowledge and opinions, in particular the agenda theory (McCombs and Shaw, 1993): the media coverage of facts increase the importance of these facts in the public agenda. Deephouse defines the media-reputation as a collective concept connecting the organization and its stakeholders. They are identified such as sources of information and readers of information. The media-reputation is fully realized in the digital environment and is put into perspective by the typology of media (Fueyo, 2015). On LinkedIn, an organization is concretely connected with its stakeholders. The members of the network are creators, broadcasters and readers of information. E-content on LBP (owned media) and LPP (earned media) represents that information. Earned media is online content that stakeholders create and control whereas owned and paid media is online content that organizations create and control (Décaudin, Digout and Fueyo, 2013). Contrary to Facebook members, for instance, members of professional social networks such as LinkedIn define themselves firstly by their working identity: they mention the organization, in which they work, their profession, and their missions. Thick networks provide stakeholders with a better access to more news and credible judgements (Bitectine, 2011). Thus, the more connected are the stakeholders, the less they trust communications from the organizations they evaluate. The number of employees who join this professional social network (LinkedIn) keeps on growing. These employees are building a thick network that allows them to have a direct access to better information about organizations they are interested in, through LinkedIn Business Pages and LinkedIn Personal Pages of their peers.

Research methodology

We are pursuing a dual objective with this research. The first objective is to conduct a critical analysis of the use of the organization's owned media e-content on LinkedIn. LinkedIn Business Pages (LBP) represent the corporate owned media. The second objective is to conduct a critical analysis of the use

of the organization's earned media e-content on LinkedIn. LinkedIn Personal Pages (LPP) represent the earned media. According to the neo-institutional approach, these elements are considered as the antecedents that impact both dimensions of corporate e-reputation (the perceived quality of the digital presence and prominence). The expected contributions involve enriching knowledge about the construction of e-reputation on professional social networks. The expected managerial contributions are the development of tools and recommendations dedicated to managers in charge of the management of their organization's e-reputation.

It is necessary to define what are Business Pages and Personal Pages on LinkedIn.

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-ALBP is a digital platform created by an organization on LinkedIn to inform members of the company, its products, its services and the opportunities of recruitment. This page bears the name of the organization. Every LinkedIn member can follow a LBP. Organizations are able to communicate with their subscribers. The subscribers of a LBP are visible. Broadcasted content on a LBP is created and controlled by an administrator who has a LPP and who is an employee of the organization for which he develops the LBP.

- A LPP, also called "profile", is a digital platform created by an individual when he becomes a member of LinkedIn. A LPP is dedicated to the professional path of an individual. A LPP bears the name of the individual. Broadcasted content on a LPP is created and controlled by the holder of the account. Various features allow to enhance the "profiles" and to increase their visibility. Every member can be in contact with other LinkedIn users and can develop his network. Every member can follow a LBP and subscribe to a "Group".

LBPs and LPPs enable to amplify the digital word-of-mouth and to contribute to the construction of corporate e-reputation (Fueyo, 2015).

The subject of this research needs a sample of homogeneous LBPs. LBPs have to belong to the same activity sector in order to make a consistent statistical processing. We take the car industry on. We realize a survey to 1 222 French members of LinkedIn (641 women and 851 men) so as to establish a ranking of the ten most spontaneously quoted companies of the automobile sector:

Renault (29.70%), Peugeot (15.71%), Citroën (9.98%), Audi (9.16%), BMW (8.59%), Ford (6.38%), Volkswagen (5.40%), Toyota (5.15%), Nissan (4.99%) and Opel (4.90%).

For each of these ten companies we conduct a

critical analysis of e-content use on LBPs. For each of the ten organizations, we analyze 100 employees' LPPs; that is to say a total of 1 000 LPPs (717 men and 283 women; this sample is proposed randomly by LinkedIn). Our study aims to identify the items of employees' LPPs e-content referring to the company. The objective consists in finding habits of employees who are LinkedIn members, in determining how they contribute to ensure their organization a digital presence and in developing its prominence. Data collection relies on the examination of the presence (or the absence) of different contents, called indicators inside every LBP and LPP. Data are coded within a dichotomous manner (0 – absence; 1- presence). As we deal with formative constructs and dichotomous answers, we create indexes for these measures. We conducted the analysis of e-contents' uses regarding indicators at first and then indexes.

Findings and discussion

Results of this research enable to develop a typology of LBP and LPP e-content through four indexes: the index of information, the index of visibility, the index of quotation and the index of participation.

Typology of e-content in LinkedIn Business Pages (LBP)

Thanks to LBPs e-content analysis, we make emerge a typology that includes two indexes:

- the index of information (gathering four indicators: (1) company's logo in the title –LogT, (2) company's description –Pres, (3) "fresh news" –INR, (4) career tab –AOPE);

- the index of visibility (gathering three indicators: (1) the number of subscribers to the LBP –NAPE, (2) the number of company's employees having a LPP –NEPE, (3) the number of members of the company's main eponymous group –NMGEp). LinkedIn members have access to these indicators. The indicators of visibility are data generated automatically by LinkedIn and put of the LBP. They give quantitative information showing the positioning of an organization within the network.

Index of information

We observe the following results. The ten companies use the three indicators of information (LogT, Pres, INR) on their LBP. About their description, every organization indicates its website, its sector, its legal status and its size. Ford is the only one not to indicate its headquarters. Links to other owned social media are not always mentioned. Renault and Audi show their links to their Facebook and Twitter official accounts; only Audi indicates its YouTube page. The career tab (AOPE) is only developed on

the LBP of Ford and Nissan.

Taking into account the index of information after aggregating the indicators, we notice that Ford and Nissan are the firms that manage the information indicators in an optimal manner (ten out of ten). Other firms obtain a high level (7.5 out of ten). These firms are not distinguished by their indicators management; only the career tab (AOPE) is not created. And yet this indicator belonging to owned media plays an important role in the strategies of communication and HR marketing. It favors the recruitment of new talents and the development of employer brand for instance.

Results also reveal that two organizations that benefit from a lower prominence are more active on LinkedIn. They use all the dedicated features in their LBP. Thus, they improve the quality of their digital presence.

Index of visibility

Bigger disparities appear regarding the use of the three indicators of visibility (figure I, page 13). First of all, the number of LBPs' subscribers varies very much from a company to another. Opel is the only organization below 10 000 subscribers. Peugeot and Citroën are also at the bottom of the ranking with 14 624 and 20 290 subscribers respectively. Audi, Renault and Volkswagen count more than 100 000 subscribers. Nissan, Toyota and BMW exceed 200 000 subscribers. Ford is the only company to count more than 500 000 subscribers. Firms that benefit from a lower prominence are those with the most followed LBPs.

Then, the number of employees having a LPP (all countries inclusive) varies very much: from 73 986 for Ford to 2 232 for Opel. The number of employees having a LPP can grow thanks to a reinforced internal communication strategy that explains the importance of creating a LPP so as to increase the organization's digital visibility.

Finally, eponymous groups differ in terms of development (Volkswagen, 10 998 members; Nissan, 615 members). These open groups foster dialogue and interactions with stakeholders. They are clearly under-used by the organizations. That causes a lack of visibility.

The visibility rate³ of an organization on LinkedIn is defined as the percentage of members who are registered for its community platforms and who are different from employees. In this research, organizations' visibility rates are significant and reveal the essential role of owned media on professional social networks: 95.54% for Audi; 93.09% for BMW; 91.55% for Toyota; 91.06% for

Nissan; 88.39% for Peugeot; 86.28% for Ford; 84.04% for Renault; 81.58% for Opel; 74.08% for Volkswagen. Only Citroën has a negative visibility rate (-0.28%).

3 Organization's visibility rate on LinkedIn = $\frac{((\text{NAPE} + \text{NMGEp}) - \text{NEPE}) / (\text{NAPE} + \text{NMGEp}) \times 100$. Employees having a LPP are registered for, at least, one of the two corporate community platforms, that is to say the LinkedIn Business Page (LBP) and the eponymous group (Fueyo, 2015).

Figure I. LBPs' indicators of visibility

Entreprises	NAPE	NEPE	NMGEp
Renault	165191	27498	7097
Peugeot	14624	1909	1830
Citroën	20290	22568	2215
Audi	138265	6266	2212
BMW	284995	20098	6029
Ford	537225	73986	2264
Volkswagen	179069	49260	10998
Toyota	235319	20317	5250
Nissan	234430	21002	615
Opel	9774	2232	2348

Typology of e-content in LinkedIn Personal Pages (LPP)

Simultaneously, we analyze e-content of LinkedIn Personal Pages (LPP). We make emerge a typology that includes two indexes:

- the index of quotation (gathering three indicators: (1) name of the employee's organization in the "identity file" –NET, (2) name of the employee's organization in the experience bloc –NEEx, (3) organization's logo in the experience bloc –LEEx);
- and the index of participation (gathering two indicators: (1) having a subscription to the LinkedIn Business Page –APE and (2) being a member of the eponymous group –MGEp).

Index of quotation

There are also formative constructs that influence corporate e-reputation (Fueyo, 2015). We observe the following results. For the most part, the employees of the ten organizations

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use each of the three indicators belonging to the index of quotation (NET: 8.05 out of ten; NEEx: 10 and LEEx: 8.11).

Therefore, employees refer to their company several times in their LPP. All employees mention the name of their organization in the experience bloc (NEEx). On the contrary, the use of the two others indicators is not optimal. The employees of Renault, Peugeot, Citroën, Ford and Opel use first LEEx then NET whereas the employees of Audi, BMW, Volkswagen and Nissan use first NET then LEEx. Employees of Toyota use as much LEEx as NET. These results show that employees define themselves by the post they hold but also by the organization that recruits them.

Regarding the logo, the employees of Ford highly incorporate it (8.9 out of ten) whereas the employees of BMW faintly adopt it (6.4 out of ten). Although the use of the name of the organization in the identity file is not automatic, it is frequent. The employees of Audi highly use it (nine out of ten). The employees of Renault mention it less (7.3 out of ten).

Then, when we take into account the index of quotation, results of the analysis reveal that the employees of Audi (9.23 out of ten) and of Ford (8.9 out of ten) are those who mention the most their organization. The employees of BMW are those who refer the least to their company in their LPP (8.23 out of ten). The scores of the quotation index make appear a ranking that is different from the spontaneous brand awareness ranking (Audi, Ford, Citroën, Toyota, Volkswagen, Opel, Renault, Peugeot, Nissan, and BMW).

The employees of the organizations that benefit from a lower prominence are those who are the most active on the professional social network. Indeed they use more the dedicated blocs in their LPP to quote their organization. Thus, they insure the development of the digital presence quality of their organization.

Index of participation

Regarding the two indicators of the index of participation, employees subscribe massively to the LinkedIn Business Page of their organization (9.16 out of ten). Nevertheless they neglect the eponymous groups (3.13 out of ten). The employees of Toyota (4.6), of BMW (4.5), of Renault (4.1) and of Citroën (4) are the most numerous to join the eponymous group of their organization. On the contrary, the employees of Ford (1.3), of Audi (1.4) and of Opel (1.5) faintly contribute to it. The majority of the employees of Audi subscribe to its LBP (9.7 out of ten). Nissan is the organization with the fewest employees who subscribe to its LBP (7.9 out of ten). Then, when we take into account the index of participation, results of the analysis reveal that the employees of Renault are those who participate the most in the community platforms of their organization (6.85 out of ten). On the contrary, the employees of Opel are those who participate the less in them (5.35 out of ten). The scores of the participation index make appear the following ranking: Renault, Citroën, Toyota, BMW, Peugeot, Volkswagen, Nissan, Audi, Ford, and Opel. The low participation of employees in the eponymous group has an impact on this ranking.

The whole of the results of this research underlines the indivisible character of LBP and LPP. Without the creation of the owned media by the organization, employees cannot be involved in the corporate community platforms. Without employees' participation (without these earned media), the visibility of the organization remains minor. When a LBP does exist, the quotation of the name of an organization in a LPP appears automatically as a hyperlink referring to the aforesaid LBP. Once again, earned media and owned media are enhanced mutually. That strengthens the digital presence quality of an organization. The importance of LPP does not have

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to be underestimated. These earned media stem from employees, have to be integrated in the digital marketing strategy of organizations so as to build their corporate e-reputation.

Conclusion

The major theoretical and managerial contribution is that this research highlights the indivisible character of the owned media and earned media on LinkedIn thanks to the creation of two typologies: the typology of LBPs e-content and the typology of LPPs e-content. These two typologies bring a new perspective regarding the digital marketing strategy of an organization in which corporate e-reputation fits in with. Indeed, in one hand, we identify the way to analyze the e-content of LBPs and LPPs. And in the other hand, we make emerge the main role of internal stakeholders within the promotion of their organization (employee advocacy) and their impact on the construction of corporate e-reputation. These typologies (through the indexes of information, of visibility, of quotation and of participation) allow enriching knowledge by the identification of new constituent antecedents of corporate e-reputation. As a matter of fact we provide managers with precious tools to analyze and manage the e-reputation of their organization.

With regard to managerial applications, results allow us to make several recommendations to launch a global corporate e-reputation strategy. This strategy consists first in the creation of owned media by the organization and then in the generation of earned media through LPPs, in particular employees' LPPs. It is necessary to conduct at the same time the management of both types of media. The indicators associated to each of two typologies are fundamental tools on which managers can rely on. Managers have to watch the LPPs e-content of employees: it is an essential step within the management of corporate e-reputation. Earned media contribute to the promotion of owned media to various circles⁴ of external stakeholders. The organization cannot reach these different circles by its own actions. Earned media that are generated improve the digital presence quality as well as its visibility.

First of all, organizations need to inform their employees about their presence on LinkedIn and to invite them to create their LinkedIn Personal Page (LPP). Employees quote not much the name of their organization in their identity file. It is necessary that companies communicate about the importance of this action as, during the research of contacts on LinkedIn, only the identity file is visible by the members. The absence of the name of the organization weakens its e-reputation. In order to encourage employees to follow the eponymous groups (as this action is not mostly done), organizations need to explain the impact of this action using internal communication tools. A low participation affects the visibility of the organization. One of the objectives for organizations is that every employee having a LPP subscribes

to their LBP to strengthen corporate e-reputation. Contents are to be broadcasted regularly within a LBP and an eponymous group to increase the digital presence quality. It goes hand in hand with the creation of the indicator "Career" which is a HR marketing tool favoring interactions. We recommend to managers the following strategic orientation: providing employees with corporate content they can share on their LPP. Employees can also be inspired by this corporate content to create their own content connected with the organization.

One sector and one professional social network are analyzed in this research. In terms of external validity, it will be pertinent to replicate the study on other professional social networks and other activity sectors. A new analysis of LinkedIn Business Pages would look at the different items gathered in every indicator of the indexes of information and visibility. The first objective would be to determine what kind of contents LinkedIn members search for. The second objective would be to identify what kind of reactions are produced when expected contents are absent on the LBP and to measure the impact of these reactions on corporate e-reputation. It will be also pertinent to compare the perceived credibility of owned media through LBPs with the perceived credibility of earned media through LPPs. Finally, a study would be conducted to understand motivations and drawbacks of employees about their use of the indicators of quotation and of participation on LinkedIn.

⁴ On LinkedIn, it does exist three types of circles of contacts: first, second and third degree (Fueyo, 2015).

Bibliographie

Argenti, P.A. (2003), *Corporate communication*, Hanover, New Hampshire, McGraw-Hill, troisième édition.

Barnett, M.L., Jermier, J.M. and Lafferty, B.A. (2006), *Corporate Reputation: The Definitional Landscape*, *Corporate Reputation Review*, 9(1), 26–38. doi:10.1057/palgrave.crr.1550012

Bettencourt, L.A., Gwinner, K.P. and Meuter, M.L. (2001), A comparison of attitude, personality, and knowledge predictors of service-oriented organizational citizenship behaviors, *Journal of Applied Psychology*, 86(1), 29–41

Bitektine, A. (2011), Toward a theory of social judgments of organizations: the case of legitimacy, reputation and status, *Academy of Management Review*, 36(1), 151–179.

Bontis, N. (1998), "Intellectual capital: an exploratory study that develops measures and models", *Management Decision*, Vol. 36 No. 2, pp. 63-76.

Chernatony (De), L. (1999). Brand management through narrowing the gap between brand identity and brand reputation. *Journal of Marketing Management*, 15, 1–3, 157–180.

Chun, R. and Davies, G. (2001), E-Reputation: The role of mission and vision statements in positioning strategy, *Journal of Brand Management*, 8(4-5), 315-333

Deephouse, D.L. (2000), *Media Reputation as a Strategic Resource: An Integration of Mass Communication and Resource-Based Theory*, *Journal of Management*, 26(6), 1091–1112

Décaudin, J.-M., Digout, J. and Fueyo, C. (2013), *E-réputation des marques, des produits et des dirigeants*, Vuibert.

Dolphin, R.R. (2004), *Corporate reputation – a value creating strategy*, *Corporate Governance*, 4(3), 77–92

Dowling, G.R. (1994), *Corporate reputations: strategies for developing the corporate brand*. London, UK: Kogan Page Ltd

Drobis, D. (2000), *Public relations: Priorities in the real economy*, *Vital Speeches of the Day*, 67(1), 15–19

Edvinsson, L. and Malone, M.S. (1997), *Intellectual Capital: The Proven Way to Establish Your Company's Real Value By Measuring Its Hidden Brainpower*, Judy Piatkus, London.

Fogel S. (2010), Issues in measurement of word of mouth in social media marketing, *International Journal of Integrated Marketing Communications*, 2(fall), 54-60

Fombrun, C.J. (1996), *Reputation: Realizing Value from the Corporate Image*, Harvard Business School Press, Boston, MA

Fombrun, C.J. (2001), *Corporate Reputation – Its Measurement and Management*, in: *Thesis*, 4, 23 – 26.

Fombrun, C. J. and Shanley, M. (1990), What's in a name? reputation building and corporate strategy, *The Academy of Management Journal*, 33(2), 233–258.

Fueyo, C. (2015), *E-réputation corporate : influence de la voix digitale des employés via l'e-contenu de leur « Profil » sur les réseaux sociaux professionnels ; application au secteur automobile*, Thèse de doctorat, Université Toulouse 1 Capitole.

Gillooly, L., Anagnostopoulos, C. and Chadwick, S. (2016), #SponsorsOnTwitter: Developing a typology of sponsor-generated Twitter content, EMAC, 24-27 mai 2016, Oslo

Goldberg, A.I., Cohen, G. and Fiegenbaum, A. (2003), Reputation building: Small business strategies for successful venture development, *Journal of Small Business Management*, 41(2), 168 – 187

Hamori, M. (2003), The impact of reputation capital on the career paths of departing employees, *Journal of Intellectual Capital*, 4(3), 304 – 315.

Hatch, M. J. and Schultz, M. (2001), Are the strategic stars aligned for your corporate brand? *Harvard Business Review*, 79, 2, 128–134.

Kiecker P. and Cowles D. (2002), Interpersonal communication and personal influence on the Internet; A framework for examining online word of mouth, *Journal of Euromarketing*, 11(2), 71-88

McCombs, M. E. and Shaw, D. L. (1993). The evolution of agenda-setting research: twenty-five years in the marketplace of ideas. *Journal of communication*, 43(2), 58-67.

Miles, M.P. and Covin, J.G. (2000), Environmental marketing: a source of reputational, competitive and financial advantage, *Journal of Business Ethics*, 23(3), 290-311

Nair M. (2011), Understanding and measuring the value of social media, *The Journal of Corporate Accounting & Finance*, 22(3), 45-51

Puncheva-Michelotti, P. and Michelotti, M. (2010), The role of the stakeholder perspective in measuring corporate reputation, *Marketing Intelligence & Planning*, 28(3), 249–274. doi:10.1108/02634501011041417

Pronschinske M., Groza M.D. and Walker M. (2012), Attracting Facebook « fans » : The importance of authenticity and engagement as a social networking strategy for professional sport teams, *Sport Marketing Quarterly*, 21, 4, 221-231.

Rao, H. (1994), *The Social Construction Of Reputation: Certification Contests, Legitimation, and the Survival of Organizations in the American*

Automobile Industry: 1895–1912, *Strategic Management Journal*, 15(1), 29–44

Rindova, V.P. and Fombrun, C.J. (1999), Constructing competitive advantage: The role of firm-constituent interactions, *Strategic Management Journal*, 20, 691–710.

Rindova, V.P., Williamson, I.A.N.O., Petkova, A.P. and Sever, J.M. (2005), Being good or being known : an empirical examination of the dimensions, antecedents, and consequences of organizational reputation, *Academy of Management Journal*, 48(6), 1033–1049.

Roberts, P.W. and Dowling, G.R. (2002), Corporate reputation and sustained superior financial performance, *Strategic Management Journal*, 23(12), 1077–1093.

Sago B. (2009), The influence of social media message sources on millennial generation consumers, *Marketing Communications*, 2(2), 7-18.

Stuart, H. (1999), Toward a definitive model of the corporate identity management process, *Corporate Communications: An International Journal*, 4(4), 200–207.

Stuart, T. (2000), Interorganizational alliances and the performance of firms: A study of growth and innovation rates in a high-technology industry, *Strategic Management Journal*, 21, 791–811.

Thorbjornsen H., Pedersen E. and Nysveen H. (2009), Categorizing networked services; The role of intrinsic-, user network- and complement network attributes, *European Journal of Marketing*, 43(3/4), 371-397.

Trusov M., Bucklin R.E. and Pauwels K. (2009), Effects of word-of-mouth versus traditional marketing: findings from an Internet social networking site, *Journal of Marketing*, 73, 90-102. Vignolles, A., Galan, J-Ph. and Munzel, A., (2016), Twitter opinion leaders: Identification and dynamics, EMAC, 24-27 May 2016, Oslo.

Viot C. (2010), « Toi aussi, deviens mon ami » Intégrer le Web 2.0 dans sa stratégie de communication, *Décisions Marketing*, 58, 77-82.

DEMOCRATIZATION OR VULGARIZATION - THE IMPACT OF FACEBOOK ON CULTURAL CAPITAL

Abstract

This paper investigates the impact of Facebook on cultural audience, putting the emphasis on the transmission of cultural capital in elitist circles. Our purpose is to provide important evidence concerning the digital opportunities and challenges for the use of social networks in cultural management. Based on an exploratory study, we look closely at the attitudes and reactions of cultural audience to the use of Facebook by theaters. We focus hereby on the democratization (acceptance) or the vulgarization (rejection) effects of the use of Facebook. We conclude that demographics and psychographics such as the generational effect and the personalities of the influence “the acceptance”, while environmental factors such as peer and media influence “the rejection” of the use of Facebook. The present findings help cultural institutions to have a better understanding of the profile of the actual theater audience, their needs, desires and fears.

Key words: social networks and Facebook, arts consumer research, theater management, cultural capital, vulgarization, democratization, structural equation modeling

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Introduction

In 2007, the Observatory of Cultural Policies (OPC) carried out a survey in the perspective to build an evolved portrait of the cultural consumption in the Belgian French Community. The focus was on the attendance of citizens in various cultural sectors, by expanding on issues such as the use of new communication technologies. Two years later, the French Ministry of Culture and Communication launched a similar initiative and it also engaged in a prospective study of cultural policies in 2030. As a result, they propose several scenarios which integrate the future cultural dynamics as the digital revolution.

Social media is not only considered as an information source and a distribution channel, but also as a “place” of consumption and exchange (Donnat, 2009). Public authorities promote networking and online communities while offering multiple opportunities for access to cultural content (EU CultureMap Study, 2010). Web 2.0 tools are factors in the development of cultural institutions as they play a facilitating role in the organization of cultural events (Maresca and Van de Walle, 2006). Social networks could be seen to provide an opportunity that facilitates the meeting between the public and the cultural product. Thus, it seems relevant to examine their strategic use, the changes and the consequences of this new digital order especially concerning the causal relationships and the differences within population groups.

In this study, we investigate the reaction of cultural audience to the use of Facebook by theaters. We chose the theatre, in particular, as a cultural institution as it represents a specific case in which the social context strongly influences the experience of consumption (Esquenazi, 2003). In particular, we aim to put the emphasis on the concept of cultural capital with its transitional factors in elitist circles. This is where the originality of our research lies. To the present day, no projects have been developed as far as the reactions of cultural are concerned. Our scope is to provide new evidence concerning digital opportunities that are far from being fully exploited. Furthermore, in the perspective of a “democratizing” role of social networks, it is important to consider the consequences of this phenomenon.

Initially, the paper presents a critical review of the existing literature, we then look into the development of the conceptual model. The methodology proceeds with the data analysis and discussion of the main results and implications, and finally, shows the limitations of and direction for future research.

Literature review and hypothesis development

Scientific research investigates the role of the Internet as a strategic enabler in arts and cultural institutions (Kolb, 2005; Rentschler et al., 2006). Social media, in particular, has gained interest both in research and in practice as one of the more recent marketing tools (e.g. Weinberg, 2009; Meerman Scott, 2010; Hettler, 2010). Indeed, research indicates that the performing arts seem to be especially eager to exploit its potential benefits (Hausmann, 2012).

Though social media represents a rather recent application in the cultural landscape, an increasing body of marketing research has already focused on this subject (Rentschler et al., 2006; Weinberg 2009). Scientific studies face the situation in two different ways: on one hand, they pay attention to the management of the cultural institutions, and on the other, they pay attention on the consumer’s perspective. An example of the first approach is represented by the publication of Hausmann and Poellmann (2011) in which they offer a status quo of social media as used by 144 German public theaters. Concerning the consumer behaviour approach, a valuable contribution is has been offered by two French authors that develop research, focusing on the impact of the Internet on audience behavior for performing arts (Martinez & Euzeby, 2010). Although some works (Janner, 2011; Scheurer, 2010; Turrini et al. 2011) explore the social media phenomenon, empirical studies are still rather scarce, especially concerning the role of virtual communities and how it affects audience decisions (Kozinets, 2008; De Valck, 2010). For that reason, we chose to contextualize our research in a very particular setting, the theater. Indeed, several empirical evidence (Edgell, Hetherington & Warde, 1997) show that theater consumption often becomes ostentation of membership to a social class. And it is through this symbolic use of arts that high social classes reflect their distinctive role in society (Veblen, 1899; Bourdieu, 1979). Research studies have shown repeatedly that the audience of theater tends to be relatively upscale in the socioeconomic status (Di Maggio, 1987). Scientific research has long pointed to the differences in cultural consumption across the social strata (Bourdieu, 1984). In this research, we are interested in this elitist aspect of consumption by highlighting the so-called “cultural capital” concept (Bourdieu, 1979).

One of the main influential positions regarding the symbolic properties of products and the sociology of consumption is elaborated in the work of Pierre Bourdieu (1987). Bourdieu argues that social classes are subject to similar conditions of existence (habits)

and conditioning factors. Hence the members of that social class have similar preferences, taste and lifestyles (Bourdieu, 1987). In his work "Distinction: a social critique of the judgment of taste", Bourdieu provides a conceptual ground for explaining how one's taste in culture can be socially conditioned (Bourdieu, 1979; DiMaggio and Useem, 1978). He introduces the concept of cultural capital that consists of the cultural resources that are acquired through socialization.

According to Holbrook (1995), similar findings have appeared in the USA which explains how highbrow (lowbrow) tastes appear to reflect a higher (lower) level of formal education. This elitist concept is also proven in a qualitative ethnography by Holt (1998) on the relevance of cultural capital to meaning-related "embodied tastes" in such areas as clothing, housing, décor, travel, music, television, movies, reading, hobbies and food.

Regarding this theoretical reflection and the empirical evidence developed in the existing literature, we focus on the elitist aspects of consumption on social networks. The question that needs to be addressed is how cultural audience reacts to the use of Facebook by theaters. We aim to explore whether cultural audience accepts or rejects Facebook, as a kind of democratization or a vulgarization of their "cultural capital". At a managerial level, we intend to predict future behavior of audience and the consequences affecting online theater communities.

The assumption is that "the set of cultural resources acquired in early life" (Bourdieu, 1984) has an impact on the habits, the interest in visiting theaters and the emotional experience within this context. According to Bourdieu, the emphasis is on the unreflective acquisition of these dispositions (Bourdieu, 1984). Colbert (2012) underlines and reviews the main factors involved in the cultural transmission as the family influence, the education in arts, the peer and the media influences. Looking at these dimensions, it is proven that the family influence (Bourdieu, 1984) plays the strongest role with regards to the cultural consumptions (Van Eijck, 2012), which is reinforced by arts education (Di Maggio, 1978). Concerning the peer and the media influences (Bearden & Etzel, 1992), we state that they play a hidden mediation role with regards to cultural behaviors (Hennion, 1988). In addition, they are also considered as environmental factors in the social cognitive theory (Bandura, 1986).

Based on the aspects which play a role in the cultural consumer behavior, we develop our conceptual model using the so-called cultural transmission determinants (Colbert and Courchesne, 2012) as

independent variables and we test the outcomes of our previous qualitative study (Milano, 2014). In 2012, we conducted a pre-study that allowed us to understand the general context in which social media is used by cultural institutions and to identify key reactions of the audience (Milano, 2014). In particular, we revealed two kinds of attitudes: a positive one and a negative one that we denominated "democratization effect" and "vulgarization effect". To simplify the presentation, we linked these effects to the acceptance and the rejection of the use of Facebook by theaters. In the first case (democratization), the social network represents a means to improve the theater experience, earn new audience and increases the loyalty of the existing ones. In the second case (vulgarization), the negative perception is linked to loss of quality and the trivialization of the experience. Hence, we use these two scenarios to test the reactions of cultural audience and we posit the following:

Hypothesis 1: Cultural Transmission Determinants influence the acceptance of the audience to the Facebook use by theaters – Democratization

Hypothesis 2: Cultural Transmission Determinants influence the rejection of the audience to the Facebook use by theaters – Vulgarization

Moreover and for giving relevance to theater implications, we also take into account the future behaviors of cultural audience based on the outcomes of the research study by Hutter and Hautz (2013). The author's findings show how a Facebook fan page affects the perception of brands and influence the consumers purchase decision. Basically, two main scenarios are possible: first, the commitment (Kim et al. 2008) as the active and psychological involvement of the audience in the online community. Secondly, the annoyance (Tamborini et al. 2010) understood as an unpleasant emotional state of mind of the audience.

Thus, we propose the hypothesis that the cultural transmission determinants influence the audience behaviors in the online communities.

Hypothesis 3: Cultural Transmission Determinants influence the commitment to the theater online communities

Hypothesis 4: Cultural Transmission Determinants influence the annoyance with the theater online communities

Figure 1 shows the conceptual model of our study. Our model includes the four cultural transmission

determinants as independent variables and highlights the influence of those dimensions on the reaction of the audience and on the consequences in the theater online community (dependent variables).

We added control variables such as geo-demographic aspects (gender, nationality, age, level of income, etc.) and behavioristic aspects such as the use of Facebook and the theater consumption. To understand the psychographic aspect we used the Big Five personality traits dimensions as a moderating effect (Rammstedt and John, 2007). To conclude, we therefore test the following:

Hypothesis 5: Psychographic aspects impact the acceptance of the audience to the Facebook use by theaters – Democratization

Hypothesis 6: Psychographic aspects impact the rejection of the audience to the Facebook use by theaters – Vulgarization

Hypothesis 7: Psychographic aspects impact the commitment to the theater online communities

Hypothesis 8: Psychographic aspects impact the annoyance with the theater online communities

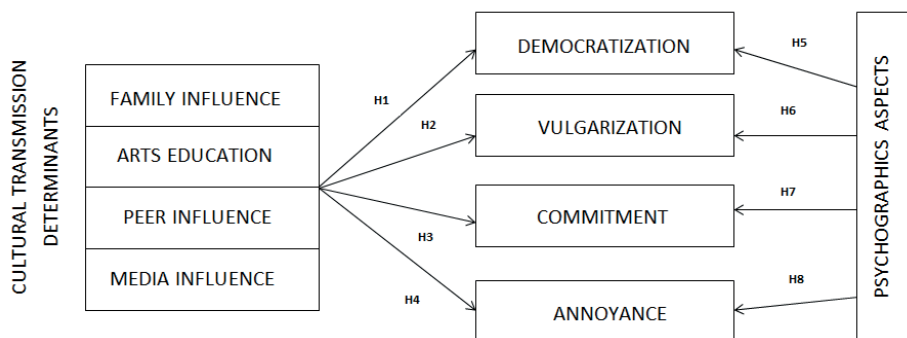


FIGURE 1 - Conceptual Model

Dataset

We developed an online survey that consists of 20 closed questions measured on 5-point-rating scales (from 1=strongly agree to 5=strongly disagree) and concerned theater’s behaviors, the use of Facebook and socio-demographic variables. Democratization and vulgarization were set up on six items based on our previous qualitative study (Milano, 2014), while commitment and annoyance were measured using a total of six items based on the research study by Hutter and Hautz (2013).

We then conducted a pre-test with a limited number of cultural consumers (250 respondents) in order to refine and improve the model. To avoid all issues concerning the privacy policies with the direct contact of the audience, we built a network of institutions interested in forwarding the online survey to their consumers. We sent the link to Belgian, Italian, German and English cultural institutions in add to the EU Cultural Section - with the objective to reach their European partners. At the end, we launched a multilanguage standardized questionnaire – available in English, French, Italian and Dutch - in February 2016 and we were able to collect 521 responses.

The dataset is mainly composed of Europeans (86.1%), of whom women constituted (56,8%) and 27,8% were between 50 and 64, with a high educational level (bachelor’s and master’s degree (66.4%). Of the total sample, 79.3% have a Facebook profile and they spend at least 1 hour per day on it (47.8%). They do not have a theater subscription (82.8%) and tend to go to the theater less than 3 times per year (38.8%). The tables below (Table 1a and Table 1b) summarize the main demographic and behavioristic aspects of the current sample.

	GENDER	NATIONALITY	AGE	EDUCATION	OCCUPATION
MODE	Female	Belgium	50-64 y	Bachelor Degree	Employed
SD	,496	6,174	1,253	1,270	2,716
%	56,8	29,8	27,8	33,2	32
	INCOME	THEATER SUBSCRIPTION	THEATER CONSUMPTION	FACEBOOK PROFILE	FACEBOOK TIME SPENT
MODE	Undeclared	No	< 3 in the last year	Yes	0-1h
SD	3,256	,378	,989	,406	,828
%	35,4	82,8	38,8	79,3	47,8

TABLE 1a – Descriptive Statistics with mode, standard deviations and percentages

<u>Gender</u>	<u>%</u>	<u>Level of Education</u>	<u>%</u>	<u>Facebook Profile</u>	<u>%</u>
Female	56,8	High school diploma	18,4	Yes	79,3
Male	43,2	Bachelor's degree	33,2	No	20,7
<u>Age</u>	<u>%</u>	Graduate degree	33	<u>Hours spent per day</u>	<u>%</u>
Under 18y	11,6	Professional Degree	10,8	0-1h	47,8
18-29 y	22,6	Doctoral Degree	4,7	1-3h	32,6
30-49 y	22,6	<u>Occupation</u>	<u>%</u>	3-5h	17,1
50-64 y	27,8	Employed for wages	32	Over 5h	2,5
Over 65 y	15,4	Self-employed	19,1	<u>Theater Subscription</u>	<u>%</u>
<u>Nationality</u>	<u>%</u>	Out of work	2,7	Yes	17,2
France	13,3	Student	30,1	No	82,8
Belgium	29,8	Retired	16,1	<u>Theater Consumption</u>	<u>%</u>
Italy	11,8	<u>Income</u>	<u>%</u>	Never	31,8
Spain	6,6	Under 10,000€	25,6	< 3 times in the last year	38,8
UK	16,8	10,000-34,999€	11	3-5 times in the last year	16,9
Germany	6	35,000-49,999€	16,5	> 6 times in the last year	12,4
EU (total)	86,1	Over 50,000€	11,5		
Rest of the World	13,9	Not declared	35,4		

TABLE 1b – Descriptive Statistics with frequencies for nominal and ordinal variables

Results

Since this research attempts to investigate the impact of Facebook on theater audience behaviour, we are putting the emphasis on the transmission factors of cultural capital in elitist circles. In measuring our determinants, the relationships and causalities between them, we aim to provide new evidence concerning opportunities that are far from being fully understood and exploited.

Correlation Effects

As we can see in table 2, two of the cultural transmission determinants like peers (.142, $p < .05$) and the media influences (.149, $p < .05$) have a positive impact on the vulgarization effect and on the annoyance effect (peer .181, $p < .05$ and media .174, $p < .05$). It proves that those who are more influenced by environmental factors are more likely to reject the use of Facebook and will therefore become more annoyed with the online community. On the opposite side, there is no significant relationship between cultural transmission determinants and the democratization effect. At this stage of the process, it seems that two of our hypotheses (*H1 and H3*) are not confirmed, therefore we cannot consider that each of the four cultural transmission determinants play a role in the acceptance of the use of Facebook by theaters nor do they make the audience committed in the online community.

As the most relevant insight based on our research framework (see figure 1), table 2 shows that there is a positive relationship (.213, $p < .05$) between the democratization and the commitment effects, such as the vulgarization and the annoyance effects (.396, $p < .05$). Contrary to that, we underline negative associations between the democratization and the annoyance effect (-.187, $p < .05$); and the same appears between the vulgarization and the commitment within the online communities (-.212, $p < .05$).

After examining the correlations among the dependent and independent variables, we would like to underline some other interesting points linked to the control variable associations – see geo-demographic and behavioristic aspects in table 2.

Gender has a positive impact on the annoyance effects (.145, $p < .05$) and peer influence (.123, $p < .05$); age has a positive relationship on media influence (.148, $p < .05$), vulgarization (.215, $p < .05$) and annoyance (.241, $p < .05$) effects. It means that older cultural audience are less likely to accept the use of Facebook by theaters

and will become more annoyed with the online community. Furthermore, the control variable called “nationality” is associated neither with the dependent nor the independent variable, indicating that the cultural differences are insignificant for analysis purpose.

Other results concerning the use of Facebook show that cultural audience that does not have a profile is less likely to accept (-.123, p < .05) its use and therefore become more annoyed (.188, p < .05) with the online community. Moreover, the time spent on Facebook is negatively correlated to arts education (-.116, p < .05), age (-.237, p < .05) and income level (-.149, p < .05); proving that those with no art education, who are younger, and with a low level of income, spends more time on Facebook.

TABLE 2
Bivariate correlations for all pairs of variables

Variables	Family Influence	Education in Arts	Peer Influence	Media Influence	Democratization	Vulgarization	Commitment	Annoyance	Gender	Nationality	Age	Level of Education	Level of Occupation	Level of Income	Theater Subscription	Theater Consumption	Facebook Profile	Facebook Time
Family Influence	1																	
Education in Arts	-.097*	1																
Peer Influence	.023	.064	1															
Media Influence	-.206**	-.020	.185**	1														
Democratization	-.011	-.016	-.064	-.019	1													
Vulgarization	-.023	0,087	.142**	.149**	-.423**	1												
Commitment	.080	-0,099	-.067	.056	.213**	-.212**	1											
Annoyance	-0,098	.028	.181**	.174**	-.187**	.396**	-.313**	1										
Gender	.038	-.002	.123**	.097*	-.076	.085	.002	.145**	1									
Nationality	-.013	.081	.065	.032	.016	.085	-.050	.036	-.074	1								
Age	-.103*	-.052	-.002	.148**	-.167**	.215**	-.141**	.241**	-.007	-.049	1							
Level of Education	.007	-.031	-.031	-.068	-.062	-.019	-.035	-.006	-.023	.032	.405**	1						
Occupation	-.075	.025	.061	.076	.007	.059	-.018	.034	-.030	.005	-.036	-.390**	1					
Level of Income	.057	.011	-.087*	-.040	-.071	.060	-.097*	.043	-.086	-.020	.619**	.359**	-.116**	1				
Theater Subscription	.006	.073	.119**	.150**	.054	-.051	-.008	.003	.147**	-.013	-.180**	-.050	-.004	-.146**	1			
Theater Consumption	.019	-.152**	-.016	-.227**	.023	-.094*	.017	-.137**	-.173**	.014	.019	.011	.013	.040	-.519**	1		
Facebook Profile	-.048	.041	.032	.086*	-.123**	.100*	-.117**	.188**	.051	-.035	.342**	-.019	.063	.210**	-.051	-.077	1	
Facebook Time	.033	-.116**	.050	.044	.084	-.071	.099*	-.091*	-.050	-.015	-.237**	-.053	.041	-.149**	.087*	.040	-.459**	1

Pearson's correlation is significant at level: *p < .10 and **p < .05; means and standard deviations in the diagonal

Linear Regression Effects

The linear regression analysis shows that media and peer influence have an effect on vulgarization (media .132, p < .05) and the annoyance (media .130, p < .05 and peer .158, p < .05). It means that those who are more influenced by their peers and media will be more annoyed with the online community and that those who are more influenced by media are more likely to reject the use of Facebook by theaters. Table 3 confirms the results of the correlation analysis and shows clearly that no significant relationship exists between cultural transmission determinants and the democratization effect.

These outcomes clearly underline that environmental factors have an impact both on the vulgarization and the annoyance effect as a confirmation of our hypotheses (H2 and H4). Likewise, two of our hypotheses are rejected (H1 and H3): family influence, arts education as well as peer and media influences do not play a role in the acceptance of the use of Facebook nor do they have an influence on the commitment of the audience within the online community.

	Model 1					Model 2					HYPOTHESES	
	Loading	SE	Beta	T	P	Loading	SE	Beta	T	P		
(Constant)	4,279	,257		16,634	,000	,888	,278		3,189	,002		
FAMILY_INFLUENCE	-,010	,035	-,013	-,285	,776	,009	,038	,010	,227	,820	H2	
ARTS_EDUCATION	-,018	,057	-,014	-,309	,757	,119	,062	,083	1,916	,056	H2	
PEER_INFLUENCE	-,077	,057	-,061	-1,360	,174	,156	,062	,112	2,538	,011	H2	
MEDIA_INFLUENCE	-,011	,048	-,010	-,224	,823	,151	,052	,132	2,932	,004	H2	
a. Dependent Variable: DEMOCRATIZATION						b. Dependent Variable: VULGARIZATION						

	Model 3					Model 4					HYPOTHESES	
	Loading	SE	Beta	T	P	Loading	SE	Beta	T	P		
(Constant)	3,711	,255		14,542	,000	1,151	,335		3,434	,001		
FAMILY_INFLUENCE	,071	,034	,092	2,055	,040	-,076	,045	-,073	-1,670	,095	H4	
ARTS_EDUCATION	-,108	,057	-,083	-1,905	,057	,024	,075	,014	,314	,753	H4	
PEER_INFLUENCE	-,101	,057	-,080	-1,796	,073	,268	,074	,158	3,606	,000	H4	
MEDIA_INFLUENCE	,092	,047	,088	1,937	,053	,181	,062	,130	2,916	,004	H4	
a. Dependent Variable: COMMITMENT						b. Dependent Variable: ANNOYANCE						

TABLE 3 - Linear multiple regression for cultural transmission determinants on democratization, vulgarization, commitment and annoyance.

Multigroup Effects

In order to extrapolate more information from our dataset, we proceed with an independent sample t-test (Tables 4a and 4b) to underline the major differences in means between different groups within the population.

Table 4a

Independent Group T-Test on Gender

	Female		Male		T-Test
	M	SD	M	SD	
Annoyance	2,43	,838	2,68	,803	-3,284**
Theater Subscription	1,78	,412	1,89	,304	-3,313**
Theater Consumption	2,26	1,008	1,92	,876	3,967**

**p<,001 N=493

Table 4b

Independent Group T-Test on Age

	Less than 30 years old		More than 30 years old		T-Test
	M	SD	M	SD	
Vulgarization	1,95	,630	2,21	,728	-3,985**
Annoyance	2,33	,706	2,63	,869	-3,785**
Facebook profile	1,06	,231	1,29	,450	-6,041**
Facebook Time	2,00	,843	1,58	,743	5,598**

**p<,001 N=493

There is a significant difference in the annoyance effect by females (M=2.2, SD=1.3) and males (M=2.68, SD=.803); $t(491)=-3.284$ $p<.001$. Other significant differences are detectable in the theater subscription { (M=1.78, SD=.412) and m (M=1.89, SD= .304); $t(491)=-3.313$ $p < .001$ } and in the theater consumption { (M=2.226, SD= 1.008) and m (M=1.92, SD= .876); $t(491)=3.967$ $p < .001$ }. These results suggest that males tend to become more annoyed with the online community and subscribe more to the theaters, even if they frequent the theater less than women do.

With regards to the differences between different age groups, we can say that several significant differences exist in the vulgarization effect {<30y (M=1.95, SD=.630)and >30y (M=2.21, SD= .728); $t(472)=-3.985$ $p<.001$ } and in the annoyance effect {<30y (M=2.33, SD=.706) and >30y (M=2.63, SD= .869); $t(472)=-3.785$ $p<.001$ }. Another significant difference is detectable in the use of Facebook {<30y (M=2.00, SD= .843) and >30y (M=1.58, SD= .743); $t(472)=5.598$ $p < .001$ }. To conclude, cultural audience over 30 is less likely to accept the use of Facebook by theaters and will therefore become more annoyed with the online community. Moreover, they tend to spend less time on Facebook compared to the youngest age group.

Moderating Effects

As we are interested in the moderating effect of the Big five personalities (Rammstedt & John, 2007), we use the paired-samples t-test for testing if the different personalities play a role in the reaction of the audience. These outcomes (Table 5) represent a confirmation of our last four hypotheses, which states that psychographic aspects impact the positive or negative reaction of the audience to the use of Facebook by theaters and, consequently, their behaviours in the theater online communities.

The different personalities play a role in the reaction of the audience: neuroticism { $t(521)=28.510$, $p < .001$ } and agreeableness { $t(521)=20.221$, $p < .001$ } are positively impacted, while a strongly significant relation exists between extraversion { $t(521)=-36.690$, $p < .001$ }, agreeableness { $t(521)=-30.737$, $p < .001$ } and openness { $t(521)=-27.912$, $p < .001$ }. In other words, those who are more neurotic and agreeable are more likely to agree with the democratization effect of Facebook. Similarly, those who are less extravert, agreeable and open are more likely to agree with the vulgarization effect of Facebook.

If we take into consideration the behavior of the audience in the online communities, we can detect the same relationship those who are more neurotic { $t(521)=20.035$, $p < .001$ } and agreeable { $t(521)=17.459$, $p < .001$ } will be more committed to the online community while those who are less extravert { $t(521)=-21.958$, $p < .001$ }, agreeable { $t(521)=-18.648$, $p < .001$ } and open { $t(521)=-17.499$, $p < .001$ } will become more annoyed with the online community.

	Democratization	Vulgarization	Commitment	Annoyance
Extraversion	14,779*	-36,690**	5,700*	-21,958**
Agreeableness	20,211**	-30,737**	17,459**	-18,648**
Conscientiousness	18,531*	-25,082*	10,426*	-15,790*
Neuroticism	28,510**	-24,177*	20,035**	-10,779*
Openess	12,784*	-27,912**	5,593*	-17,499**

p-value: * $p<.05$ and ** $p < .001$; N=521

TABLE 5 - The t-value of Paired T-Test Results for the BIG Five Personalities

SEM Findings

In order to shed new light on the linear analysis we conducted previously and with the objective to run multivariate causal relationships in our model, we applied Structural Equation Modelling with the support of AMOS 24.

First, the structural model was used to assess the internal relationships and the causal consistency of the constructs. Those findings are summarized in Table 6. As we can clearly notice, 4 models were developed with the purpose of presenting multiple-group analysis and running the control variables already resulted significant in our linear regressions – like gender, age and the use of Facebook. Among the four cultural transmission determinants, the only one that impacts the annoyance with the theater online community is represented by the media influence (0.17 ***), especially by participants above 30 (0.267 ***) having a Facebook profile (0.195 ***). Women seem to agree more with the rejection of the Facebook use by theaters (vulgarization effect). This reaction is due to the media influence (0.225 ***).

Table 6

Unstandardized, Standardized, and Significance Levels for Model in Figure 2 (Standard Errors; N = 521)

Parameter Estimate	Model 1				Model 2 - Gender (Female)			
	Unstandardized	S.E.	Standardized	p	Unstandardized	S.E.	Standardized	p
FAMILY_INFL --> DEM	-0,047	0,062	-0,036	0,446	0,019	0,087	0,015	0,826
ARTS_EDU --> DEM	0,03	0,037	0,039	0,414	-0,043	0,053	-0,054	0,419
PEER_INFL --> DEM	-0,001	0,037	-0,001	0,98	-0,024	0,055	-0,028	0,659
MEDIA_INFL --> DEM	0,037	0,045	0,039	0,406	0,127	0,064	0,128	0,046
FAMILY_INFL --> VULG	0,013	0,06	0,011	0,834	0,061	0,084	0,05	0,469
ARTS_EDU --> VULG	0,067	0,036	0,094	0,06	0,048	0,051	0,066	0,344
PEER_INFL --> VULG	0,059	0,036	0,081	0,102	0,115	0,053	0,148	0,029
MEDIA_INFL --> VULG	0,108	0,043	0,122	0,013	0,204	0,061	0,225	***
FAMILY_INFL --> COMM	0,081	0,059	0,062	0,172	-0,025	0,081	-0,019	0,763
ARTS_EDU --> COMM	-0,075	0,035	-0,098	0,031	-0,065	0,05	-0,082	0,19
PEER_INFL --> COMM	-0,002	0,035	-0,003	0,946	0,048	0,051	0,057	0,349
MEDIA_INFL --> COMM	0,122	0,043	0,127	0,004	0,079	0,059	0,08	0,185
FAMILY_INFL --> ANN	-0,087	0,047	-0,088	0,065	-0,16	0,062	-0,169	0,01
ARTS_EDU --> ANN	-0,019	0,028	-0,033	0,497	-0,016	0,038	-0,028	0,673
PEER_INFL --> ANN	0,086	0,028	0,145	0,002	0,098	0,039	0,161	0,012
MEDIA_INFL --> ANN	0,123	0,034	0,17	***	0,1	0,045	0,14	0,028

(Notes) $\chi^2 = 67,480$; $p < .001$; GFI 0,969, NFI 0,918, RMSEA 0,023

(Notes) $\chi^2 = 77,895$; $p < .001$; GFI 0,946, NFI 0,901, RMSEA 0,039

Parameter Estimate	Model 3 - Age (>30 years old)				Model 4 - Use of Facebook (Profile)			
	Unstandardized	S.E.	Standardized	p	Unstandardized	S.E.	Standardized	p
FAMILY_INFL --> DEM	-0,063	0,081	-0,047	0,44	-0,035	0,077	-0,025	0,654
ARTS_EDU --> DEM	0,034	0,049	0,043	0,484	-0,013	0,045	-0,016	0,77
PEER_INFL --> DEM	-0,02	0,047	-0,026	0,671	-0,011	0,044	-0,013	0,804
MEDIA_INFL --> DEM	-0,003	0,052	-0,003	0,961	0,033	0,053	0,033	0,54
FAMILY_INFL --> VULG	-0,038	0,075	-0,032	0,612	0,048	0,074	0,037	0,515
ARTS_EDU --> VULG	0,061	0,045	0,087	0,17	0,023	0,044	0,03	0,602
PEER_INFL --> VULG	0,063	0,044	0,091	0,15	0,058	0,042	0,078	0,166
MEDIA_INFL --> VULG	0,074	0,048	0,093	0,126	0,333	0,099	0,395	***
FAMILY_INFL --> COMM	0,112	0,08	0,082	0,163	-0,002	0,073	-0,001	0,978
ARTS_EDU --> COMM	-0,102	0,048	-0,126	0,033	-0,108	0,043	-0,132	0,012
PEER_INFL --> COMM	-0,007	0,047	-0,008	0,885	0,014	0,041	0,017	0,739
MEDIA_INFL --> COMM	0,139	0,052	0,152	0,007	-0,145	0,101	-0,14	0,153
FAMILY_INFL --> ANN	-0,09	0,058	-0,095	0,121	-0,128	0,061	-0,115	0,036
ARTS_EDU --> ANN	-0,045	0,035	-0,079	0,196	-0,054	0,036	-0,083	0,133
PEER_INFL --> ANN	0,073	0,034	0,131	0,031	0,1	0,035	0,157	0,004
MEDIA_INFL --> ANN	0,17	0,037	0,267	***	0,153	0,042	0,195	***

(Notes) $\chi^2 = 92,452$; $p < .001$; GFI 0,901, NFI 0,961, RMSEA 0,01

(Notes) $\chi^2 = 86,298$; $p < .001$; GFI 0,987, NFI 0,971, RMSEA 0,061

To evaluate the overall causal model, multiple fit indices were examined: the ratio of chi-square to degrees of freedom (df), the goodness-of-fit index (GFI), the adjusted goodness of fit index (AGFI), the comparative fit index (CFI), the normed fit index (NFI), and the root mean squared error of approximation (RMSEA). These test statistics supported a satisfying overall fit of the model presenting in the following table (table 7).

Table 7. Model Fit Summary

Model	CMIN/DF	GFI	NFI	CFI	AGFI	RMSEA
Default model	4,435	0,969	0,918	0,957	0,961	0,023

Concerning the path analysis of our model, the following figure (Figure 2) displays the main findings of our analysis. Basically, the structural equation modeling permits us to focus the attention on the main cultural transmission determinants that impact our construct such as the media influence.

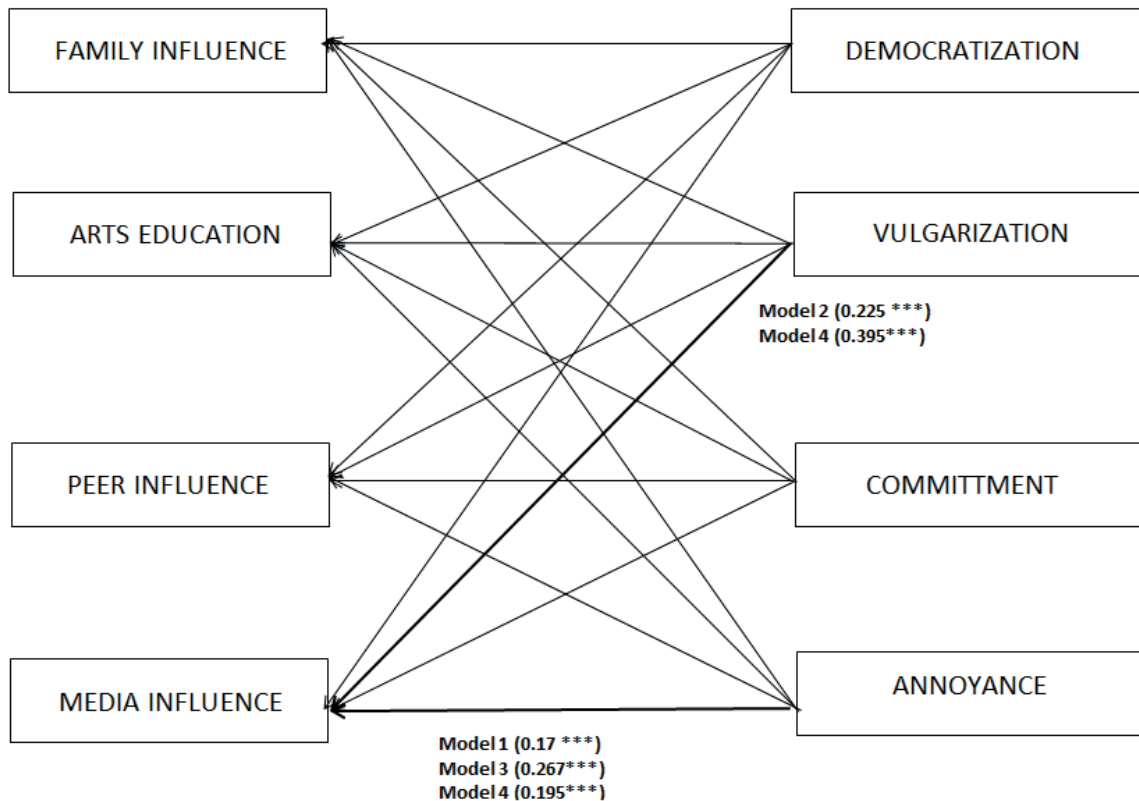


FIGURE 2 - SEM of Cultural Transmission Determinants on Reactions and Behaviors of Theater Audience (Standardized Solution = N. 521)

Discussion and managerial implications

At this stage of the analysis, we can confirm that peer and media influences have an impact on the attitudes and the behaviors of cultural audience. In a social cognitive perspective, the environmental factors affect the reactions of the cultural audience that confirm the position of Colbert (2012). He argues that the transmission of cultural capital cannot be a simple transfer of learning from the family or the educational system, but it is a journey in which the child undergoes a process of transformation marked by the appropriation and the construction of his personality. Rather, the analysis states that the contemporary cultural audience that rejects the use of Facebook by theaters tends to give more importance to the peer comments and media critics based on a shared system of values typical of elitist circles.

If we focus on the positive scenarios of our conceptual model that takes into account the acceptance of the use of Facebook by theaters and the commitment in the theater online community, we cannot confirm the first hypothesis of our conceptual model. Cultural transmission determinants such as family influence, education in arts, peer and media influences have no influence on the acceptance of Facebook's use by theaters and on the commitment in the online community. As consequence of these results, it looks relevant to ask us what are the factors that influence the so-called democratization effect and what are the interactions between them (Milano, 2014). Until now, we can clearly state that age has an impact on the attitudes and the behaviour of cultural audience. The multigroup analysis outcomes seem totally logical and comprehensible, so we can affirm that the generational effect has a clear impact on the acceptance of the use of Facebook by theaters and the commitment in the online communities. This statement is also confirmed by the analysis of the behavioristic variables linked to the use of Facebook. In fact, those who have a profile and tend to spend at least one hour per day on Facebook agree more with the democratization effect and are more committed to the online community. This means that a regular use of the new technologies makes the audience more confident (De Valck, 2010).

Furthermore, we aim to address the moderating effect of the Big Five personalities traits (Rammestedt & John, 2007). Our findings have clearly shown that the different personalities influence the attitudes and the behavior of cultural audience. As previous research has established (Ross et al, 2009; Correa et al, 2009; Ryan and Xenos, 2011), extroversion and openness are central traits linked to social media use. In particular, our results offers an addition to the literature on the use of new technologies and the intersection of personality, adding more shades to the existing outcomes that were applied only on a college age sample (Gosling et al, 2011). In our case, the agreeableness plays a double role in which it represents a kind of a discriminant of attitudes and behaviors (both positives or negatives). This means that those who are more likely to accept the use of Facebook by theaters are more empathetic and altruistic, while those who agree more with the vulgarization effect are more related to selfish behavior and tend to compete with others rather than cooperate.

To conclude, a special mention is place as far as media influence is concerned. As an interpretation of our structural equation model, we notice that it influences all negative scenarios that we hypothesized, such as the reactions to the use of Facebook by theaters and the behaviors in the online communities. In fact, it seems that women are more affected by this determinant when they tend to reject the use of Facebook by theaters. And the same reaction applies to consumers with Facebook profiles who tend to become easily annoyed with the online communities, like younger audience (<30years). To sum up, it seems that the use of media has to be accurately considered and managed in order to avoid negative reactions by women and annoyance in the younger consumer.

In this context, the behavior of men and the motivations that push them to react in a different way compared to women seems to be less clear. Our findings underline that men tend to become more annoyed with the online communities, while women tend to reject more the use of Facebook by theaters due to the media influence. This looks like a tendency to weight the erosion of the elitist character via Facebook advertisings more heavily than men.

Conclusions and future research

The four cultural transmission determinants (family influence, arts education, peer influence and media influence) affect audience reaction. In particular, environmental factors (peer and media influences) have a positive impact on vulgarization and annoyance, which is confirmed

in our correlation analysis, regressions, and paired-samples t-tests and in the SEM analysis. We show that demographics and psychographics aspects of the audience influence the acceptance of Facebook use by theaters, termed by us like as “the democratization”. This statement is confirmed in the correlation analysis, independent group t-test and in the multigroup SEM analysis.

Even if these findings are interesting, we estimate more research on our first hypothesis and it seems relevant to ask ourselves what the other factors that influence the democratization effect are. Until now, we can underline two main determinants: the generational effect and the personality of the audience. Those outcomes push some reflections for the theater management: it appears even more useful for cultural institutions to choose a more specific positioning or change it for attracting new market segments. The use of Facebook could reflect the decision to target younger segments of the population, bearing in mind the main personality traits such as the extroversion and the openness.

Furthermore, the confirmation of our model aims to generate a direct impact on managerial approach of theaters, especially concerning cultural policies. In the perspective of a “democratizing” role of social networks, it seems important to consider the more practical aspects of this phenomenon. Web 2.0 tools may be consciously used both by public authorities and by small organizations that deal with the reduction of disparities between generational groups. The value proposition process has also to take into account these information concerning of actual theater audiences and their needs, wants and fears, without forgiving the older audience that could be less agree with the use of Facebook.

In this perspective, it seems that Facebook is used by theaters such as communication tool rather than a participative channel. As main conclusion of our SEM analysis we can clearly put an alarm on the massive use of Facebook ads by theaters, because this could affect the reaction of the audience. At the end, theaters should consider Facebook as a platform that allows sharing experiences with the audience and not only as a promotional tool. It seems that cultural performing arts institutions could apply those new models and actual values in fund raising auctions or with the objective to inspire the participation of the audience in new storytelling plans or in the new conception of real time participative shows.

In conclusion, we aim to underline the limitations of this study. Since we based our research on a single social network, we could suggest going deeper into the analysis of the different uses and perceptions in presenting a comparative point of view focusing on

Twitter, Instagram or Snapchat. This would be with the objective to provide future trends and scenarios, in order to provide a wider overview of the topic and a stronger generalization to our model in exploring the causality in relationships.

References

- Bearden, W.O. & Etzel, M.J. (1992). Reference influence group on product and brand purchase decisions. *Journal of Consumer Research*, 9, 183-194.
- Bourdieu, P. (1984). *La distinction. Critique sociale du jugement*. Le sens commun.
- Bourdieu, P. (1990). *Reproduction in Education, Society and Culture*. Sage Publications.
- Bourdieu, P. (1992). *Les règles de l'art : genèse et structure du champ littéraire*. Seuil.
- Colbert, F. & Courchesne, A. (2012). Critical issues in the marketing of cultural goods: The decisive influence of cultural transmission. *City, Culture and Society*, 3, 275-280.
- De Valck, K. (2010). Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities. *Journal of Marketing*, 74(2), 71-89.
- Di Maggio, P. & Useem, M. (1978). Social class and arts consumption: The origins and consequences of class differences in exposure to the arts in America. *Theory and Society*, 5(2), 141-161.
- Di Maggio, P. (1982). Cultural Entrepreneurship in Nineteenth Century Boston, Part I: The Creation of an Organizational Base for High Culture in America. *Media, Culture and Society*, 4, 33-50.
- Di Maggio, P. (1987). Classification in Art. *American Sociological Review*, 52(8), 440-455.
- Edgell, S. (1997). *Consumption Matters: The Production and Experience of Consumption*. Blackwell.
- GERME – ULB for Observatoire des Politiques Culturelles Fédération Wallonie (2007). *Pratiques et consommation culturelles de la population en Fédération Wallonie*.
- Hennion, A. (1988). *Comment la musique vient aux enfants? Une anthropologie de l'enseignement musical*. Anthropos.
- Esquenazi, J.-P. (2003). *Sociologie des publics*. La Découverte.
- Hausmann, A. (2012). Virale Empfehlungen und Social Media im Theaterbereich. *Betriebswirtschaftliche Forschung und Praxis*, 1, 18-33.
- Hausmann, A. & Poelemann, (2011). Broadcast your services! Impact of Social Media on the Marketing of Performing Arts Organizations. *Working Paper of European-University, Viadrina Frankfurt*.
- Hettler, U. (2010). *Social Media Marketing*. Oldenburg.
- Hutter, K. & Hautz, J. (2013). The impact of user interactions in social media on brand awareness and purchase intention: the case of MINI on Facebook. *Journal of Product & Brand Management*, 22(6), 342-351.
- Janner, K. (2011). *Social Media im Kulturmanagement*. Mitp
- Kim, J.W., Choi, J., Qualls, W. and Han, K. (2008). It takes a marketplace community to raise brand commitment: the role of online communities. *Journal of Marketing Management*, 24(3), 409-431.
- Kolb, B. (2005). *Marketing for cultural organizations*. Oak Tree Press.
- Kozinets, R.V. (2008). Technology/Ideology: How Ideological Fields Influence Consumers Technology Narratives. *Journal of Consumer Research*, 34(6), 864-881.
- Martinez, C. & Euzeby, F. (2010). Usages et impact d'Internet pour les publics du spectacle vivant: une étude sur les variables Motivation-Opportunité-Aptitude. *11th International Conference on Arts and Cultural Management*, Belgium, July 2011.
- Meermann Scott, D. (2010). *The New Rules of Marketing and PR: How to Use Social Media, Blogs, News Releases, Online Video, and Viral Marketing to Reach Buyers Directly*. John Wiley and Sons.
- Milano C. (2014). Democratization or Vulgarization of Cultural Capital? The Role of Social Networks in Theatres' Audience Behavior. *ENCATC Journal of Cultural Management and Policy*, 4 (1), 46-56.
- Rammstedt, B. & John, O.P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality*, 41, 203-212
- Rentschler, R., Radbourne, J., Carr, R. and Rickard, J. (2006). Relationship marketing, audience retention and performing arts organization viability. *International Journal of Nonprofit and Voluntary Sector Marketing*, 7(2), 118-130.
- Scheurer, H. (2010). *Kultur 2.0. Neue Web-Strategien für das Kulturmanagement im Zeitalter von Social Media*. Transcript.
- Tamborini, R., Bowman, N.D., Eden, A., Grizzard, M. and Organ, A. (2010). Defining media enjoyment as the satisfaction of intrinsic needs. *Journal of Communication*, 60 (3), 758-777.
- Turrini, A., Soscia, I., Maulini, A. (2011). Web communication can help theatres attract and keep younger audiences. *International Journal of Cultural Policy*, 1-12.
- Van Eijck, K. (2012) Culture of distinction or culture of openness? Using a social space approach to analyze the social structuring of lifestyles. *Poetics*, 40, 491-513.
- Weinberg, T. (2009). *The New Community Rules: Marketing on the Social Web*. O'Reilly.

Organizational variables influencing the creativity of industrial designers: the IFI S.p.a. case study

Abstract

The aim of this paper is to identify the organizational variables that favor the creativity of industrial designers in the creative and innovative processes of enterprises. After reviewing the marketing literature on industrial design and creative and innovative processes, a case study analysis was carried out. The subject of the study was a design-driven Italian company, IFI S.p.a., a leader in the bar and ice cream parlor furnishings sector. The results of the analysis show that the main variables which positively influence the designer's creativity in enterprises are the creative role of the entrepreneur, the organization's orientation toward creativity, and the characteristics of the teams and their tasks, especially regarding whether or not they have the freedom to experiment and the degree of heterogeneity of skills.

Key words: creativity, innovation, industrial designers, organizational variables, business to business market, enterprises

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1. Introduction

While the interest in product innovation has always been very high in marketing and management studies, the strategic role of design-driven innovation has received increasing attention only recently (Dumas and Minzberg 1989; Verganti 2006; Rindova and Petkova, 2007; Bettiol and Di Maria 2014).

Empirical studies have shown that the industrial designer has a positive effect on the innovative capacity of firms and on business performance (Berkowitz 1987; Lorenz 1986; Walsh et al. 1992; Gemser and Leenders 2001; Veryzer 2005; Landoni et al. 2016). In fact, in order to compete in international markets, companies must introduce innovative products that feature an original combination of functional, technological, aesthetic, intangible, and symbolic aspects (Symbola Foundation 2014; Micelli 2016). Therefore, in the creative and innovative process, companies should involve not only the R&D and marketing departments but also the industrial design department (Bettiol and Di Maria, 2014). Industrial design must be understood, in the broadest sense of the term, as a project of functional, technological, aesthetic, and emotional value (Lojacono 2000).

This paper aims to answer the following research question: what are the organizational variables favoring the creativity of industrial designers in the creative and innovative processes of enterprises? This study is based on the case study analysis of an SME operating in the B to B market; the company is a leader in the wooden bar countertop sector, whose value proposition formula is the creation of “beautiful and well made” products resulting from creative and innovative processes in cooperation with industrial designers. The study highlights the role played by industrial designers in the radical innovation of a product and shows the major organizational variables that favor their creative contribution.

The paper is organized as follows. In §2 we clarify the concept of industrial design, discuss the role that it plays in the creative and innovative process of a company, and identify the main organizational variables that foster creativity in the company. In §3 we discuss the methodological aspects and analyze the case study. In §4 we present the empirical results. Finally, in §5 we suggest some managerial implications arising from the research.

2. Theoretical background

2.1. The concept of industrial design

Despite the lack of systematic theories on industrial design and the great ambiguity surrounding its definition (Berkowitz 1987; Kotler and Roth, 1984; Block 1995; Walsh 1996; Luchs and Swan 2001), more and more marketing and management scholars have adopted a broad definition of industrial design which goes beyond the aesthetic aspect to include other aspects such as ergonomics, ease of manufacture, efficient use of materials, user friendliness, functional performance, and so on (Gemser and Leenders 2001).

Norman (2004) states that Emotional Design must satisfy three conditions: the Visceral condition linked to the immediate impact produced by an object, the Behavioural condition relating to usability, and the Reflexive condition that refers to the personal and the social meaning that a particular product has. Similarly, design has been defined as “the set of activities that focus on the integration of functional, emotional, and social utilities” (eDesign 2013).

While in the past *design* was a niche phenomenon linked to luxury small-series production, today it has become a democratic and “mass” phenomenon that is combined with industrial production. In addition, it involves a growing number of industrial sectors: from furniture to automotive, from personal accessories to industrial markets and the services sector. Ikea and Apple are emblematic examples.

The background of Italian designers is based on the wealth and diversity of the Italian cultural heritage, unlike German designers, whose formation mostly stems from a strong industrial culture, and Scandinavian designers, whose expertise is based on a consolidated training system (Sabbadin 2011). Nationalities aside, the two main barriers to cooperation between companies and designers are the lack of a common language on design and the poor analysis of the dynamics that characterize the relationship between the investment in design and the competitive performance (Swink 2000; Wallace 2001; Chiva and Alegre 2009).

2.2. The role of industrial design in the enterprise's creative and innovative process

Creativity is the ability to create new and useful ideas while *innovation* is the ability to translate ideas into action (Amabile et al. 1999). The concept of creativity is related to knowledge, which is the key resource that favors creativity (Nonaka 1994). It manifests itself through the generation of new ideas that result in new knowledge of a process of scientific or social validation (Csikszentmihalyi 1999). Innovation takes place only through the productive application of new knowledge and/or

new combinations of existing knowledge (Pencarelli et al., 2013).

A company's creativity is influenced by individual, team, organizational, relational, and external environment elements (Bilton 2007; Montanari 2011). Business creativity requires "creative" individuals as industrial designers. At the same time, a company needs favorable variables without which the individual creative characteristics may not emerge in all their potential; sometimes one or the other variable may prevail (Pilotti 2011).

The creative contribution of the industrial designer contributes to strengthening the company's creative capability (Napier and Nielsson, 2006), that is, the distinctive skill necessary to develop and maintain a unique and original selling proposition (Nebenzahl and Jaffe 1996). More specifically, the designer contributes to strengthening what Landoni defined as "design innovation capabilities" (2016, p.487) or, in other words, as "the capabilities that enable companies to innovate their products' functional (performance, functionality), social (how am I perceived by others?), and emotional (how does it make me feel?) utility (€ Design 2013)".

Design-driven innovation adopts an incremental and holistic managerial logic, and sees the company as an integral part of a network of companies and professionals (e.g. customers, suppliers, research institutions, business partners, consultants) that manages this process in a collaborative and co-productive way (Rothwell 1994; Nonaka and Takeuchi 1995; Von Hippel 1988). However, design-driven innovation has recently been receiving increased attention (Dumas and Minzberg 1989; Verganti 2006; Rindova and Petkova 2007; Bettiol and Di Maria 2014; Micelli 2016). The innovation literature has, in fact, attributed to customers (especially to lead users) a very important role as a source of knowledge to understand the future needs of the demand side and to collect useful information for the design of new products (Von Hippel 1988). In addition to the study of demand, other determinants of product innovation are technological change and historical analysis of successful products (Goldenberg and Mazursky 2003).

Several studies have shown that industrial design (Dorst and Cross 2001; Walsh and Roy 1985) is essential for product and process innovation (Perks et al. 2005; Bogers and Horst 2013) to increase a company's competitiveness (Borja de Mozota, 2003; Swan et al. 2005). In particular, many studies have stressed the existence of a positive link between investments in design and business performance improvement (Swan et al.

2005; Chiva and Alegre 2009; Landoni et al. 2016).

2.3. Organisational variables influencing the company's and the designer's creativity

As mentioned above, the literature on corporate creativity has identified the organizational and relational factors that can encourage creative contribution in a firm. They are summarized below, in Table 1.

Table 1 Organizational variables favoring corporate creativity

3. Objectives and methodology

As stated above, the research question this work aims to answer is the following: what are the organizational variables favoring the creativity of the industrial designer in the creative and innovative processes of firms? To answer this question, the literature on innovation, creativity, and industrial design was reviewed, emphasizing the importance of industrial design in creative and innovative processes and of organizational variables that encourage creativity (§ 2). Then, in § 4 a case analysis is conducted on IFI S.p.a., a leader company in the bar furnishings industry; over the last ten years, this company carried out radical product innovations using an innovative design which led to a steady growth in business performance.

The study adopts a qualitative and exploratory-descriptive approach and uses the case study method (Eisenhardt and Graebner 2007; Yin 2009; Tsang 2013). The phenomenon under study is still largely unexplored and complex because it includes many variables. The case study was analyzed through the following research techniques:

- semi-structured interviews with the entrepreneur, the R&D and Marketing managers, and a famous designer;
- analysis of the company documentation (catalogs, brochures, etc.) and the information available on the company website;
- participant observation by one of the authors during some guided factory tours.

The interviews were aimed at understanding the radical innovative process of a product, from the creative phase to the product launch on the market, and the role of the industrial designer in

such processes. This was achieved by asking the interviewees to evaluate the impact of organizational variables on their creativity, a scale of high, medium, or low. The interviews lasted about an hour, and they were conducted and recorded in the period between September 2015 and February 2016. The interview transcript was approved by the respondents. The mix of instruments chosen allowed the research team to increase the internal reliability of the data (Yin 2009).

4. The IFI S.p.a. case study

4.1. The company and its products

IFI S.p.a. is a medium sized company with 340 employees, located in Pesaro, in central Italy. Founded in 1962, today it is a leader in the field of bar and ice cream parlor furnishings. Its international market presence includes Europe (especially France, Spain, and Germany), Asia, and America with exports amounting to approximately 50% of company turnover.

The products range lines are ice cream display and dipping cases, bar counter tops, snack display cases, and refrigerated cells. The customers are ice cream parlors, bars, pastry shops, restaurants, self-service cafeterias for snacks or food, canteens, and roadside restaurants.

Since the late 60s the company has used design as one of the main levers of its success, first, by working with MH design studio of Makio Hasuike in Milan and later, establishing collaborative relationships with numerous freelance designers, such as Marc Sadler, Francesco Geraci, Giulio Iacchetti, etc. In just a few years, the company became a market leader through the concept of “useful design”, i.e., design that combines functionality and aesthetics.

The beating heart of the company is the research and development department, which effectively collaborates with the marketing department and external designers. There are three main proprietary products which, for the last fifteen years, have distinguished IFI, obtaining important international awards for innovation and design (see Figure 1): *Start Up*, *Tonda*, and

Bellevue with Panorama® technology.

Start Up is a complete and not expensive furniture bar system targeted to young people intending to start a new business. It has been created in collaboration with the designers Giorgio Di Tullio and Raffaele Gerardi. *Start Up* has received the Grandesignetico Award in 2012 and the Honorable Mention at the Compasso d'Oro International Award in 2015.

Tonda, which won the XXI Compasso d'Oro (Golden Compass Award) in 2008, is probably the most revolutionary product and the emblem of the IFI growth path; a refrigerated display case created in 2005, it was a milestone in the growth of the ice cream parlor furnishings sector as the first round, rotating gelato dipping case made in collaboration with the designer Makio Hasuike. Finally, *Bellevue with Panorama® technology* has revolutionized the way ice cream is stored in the dipping cylinders by combining two elements which were always so far apart: the perfect ice cream storage method and its maximum visibility. In 2014 *Bellevue* was awarded the XXIII Compasso D'Oro.

Figure 1 – IFI's main products

4.2. The creative and innovative process and the role of the industrial designer

In IFI the creation of new products typically involves the participation of industrial designers and possibly of architects, sociologists, universities or other educational institutions. The radical innovation process is based on team work, on the integration of know-how and different skills, which involves the R&D department, the designer, the marketing and the sales areas.

The R&D department, the heart of the company and the engine of innovation, is composed of a team of more than 30 internal staff members (about 10% of company personnel) who are thermodynamic and electronic engineers, designers, technicians, and researchers who develop projects independently or in cooperation with industrial designers. The department is composed of two areas: the technical office (technology design, aesthetic design, and prototyping) and the thermodynamic and electronic design area (laboratory tests).

Figure 2 – The process of developing a radical innovation product at IFI S.p.a.

The radical innovation process (Figure 2) begins with the ideas developed by industrial designers; ideas are often expressed in the form of sketches and a brief one-page description or rendering. The R&D Director explains that: “the designer

receives a very soft brief, the scenario, and has to create a realistic viable project, based on a few basic constraints in the sector. For example, a constraint can concern the display case windows: given the low consumption, the company cannot make large investments to produce special glass.” The designer can intervene on form, on the way something will be used, on the technology, and on the materials. Then, the IFI team decides whether to proceed or not, following the team work in which all the different experts are continuously being asked for their input on the various steps of the creative-innovative process. The company tries to maintain the designer’s initial idea and will make corrections only if necessary, e.g. if they exceed the costs of industrialization. There is a trusted “warm” relationship between the designer and the company, creating a good environment in which problems can be identified (problem-finding) and solved (problem-solving) together.

After the first step of the innovation process there follow the phases of maquette (a kind of pre-prototyping), the legal protection of ideas, and the structural, thermodynamic, electrical, and mechanical design. In this last step forms are translated into technical details that will make up the various products and subsequently, components are studied and defined individually in every detail so they can be represented in construction drawings. Before starting the production phase, the prototypes are made in order to analyze the possible aesthetic, ergonomic, construction, dimensional, or functional issues and to ascertain the product’s economic sustainability. The prototypes are subjected to functional tests in climatic chambers to measure their performance under extreme conditions of temperature and humidity. From these analyses, it is possible to correct or make adjustment to the drawings; at this stage, even the marketing and sales departments can suggest improvements to the prototype.

Then, the pre-series production (1-5 pieces) starts: in this phase a few customers test the product, orders are collected, and it is possible to obtain a final quantification of the industrial cost of the product. Finally, the series goes into production.

These steps are never rigidly sequential, but are sometimes parallel. From the formulation of the idea to the start of production, it takes a year and a half, on average, and for complex projects, five years.

As regards instead incremental innovations of the product, they are limited to small changes suggested by customers. The organizational responsibility for these innovations is assigned to the technical office.

4.3. The organizational and interpersonal variables that favor the creativity of the designer

The main organizational and interpersonal variables that favor the creativity of designers in IFI are: 1) the entrepreneur’s creative role, 2) the orientation that the company shows towards creativity, and 3) the characteristics of tasks and teams (see Table 1). These are the variables that respondents evaluated as ‘high’, on a high-medium-low scale.

Concerning the first variable, the entrepreneur was and is very passionate about design; he was the first to bring design into the bar furnishings industry in the late 60s and he has always supported the use of design as a corporate strategic tool. The company founder also directed the Italian Design Association for regions Marche, Abruzzo and Molise, and the local trade association, Confindustria Pesaro and Urbino. He invests both culturally and financially in creativity and design, adopts a participatory leadership style, and stimulates the creativity of his employees.

Moreover, he chooses industrial designers who have never had experience in the industry because he believes that they are less biased and freer to express themselves. He has fully understood the role of the industrial designer, in the broad context of a complex industrial project that must combine functionality, technology, aesthetics, and values. In fact, the company does not cooperate with designers merely to aesthetically “refine” its products or to get ideas, but it “entrusts” the product to the designer’s creativity and supports it throughout the innovation process until the launch of the product on the market.

Turning to the orientation of the enterprise toward creativity, the entrepreneur has shaped the corporate culture concerning design, effectively communicating to the innovation team the importance of developing an informal relationship and a feeling of connectedness with the designer. Furthermore, as already noted, he grants freedom of expression to the designer despite the basic constraints.

A basic rule within IFI which effectively expresses the company’s orientation towards creativity is to let industrial designers participate in all phases of the creative and innovative process, from the development of ideas to production, by providing minimum initial indications and granting wide degree of experimentation. More generally, the company does not punish mistakes or failures because they are integral elements of the creative and innovative processes; rather, it fosters collaboration and an informal working atmosphere.

Moreover, those who are involved in creative and

innovative processes are rewarded with career advancement and financial rewards that are also tied to corporate awards earned, such as the Golden Compass.

With regard to the characteristics of tasks and teams, the creative contribution of the individual is stressed, particularly with respect to the achievement of a common goal, i.e., coming up with an innovative product that can create value for customers and solve their problems. There is strong freedom of expression in accordance with the established constraints and the different skills of the many professionals involved in product innovation are enhanced.

Respondents believed that the other organized variables examined (pressure in an organization, resources invested in support for creativity, relationships that the company establishes with external networks) exert medium influence on designer creativity, based on a high-medium-low scale. The study showed that in IFI there is no strong pressure exerted by the enterprise for radical innovation in terms of product deadlines or excessive workloads that would limit creativity and innovation. Indeed, the radical innovation process of the product has a variable duration ranging from one to five years and the innovation team involved can manage its tasks without undergoing particularly tiring and stressful periods.

In addition, the company invests financially in design. This can be considerable, especially for the most famous designers or “superstars” who command an initial fee and royalties as a percentage of turnover. Finally, as regards the relationships that the company establishes with external networks, the interviews showed that the company has joined networks with business partners, with trade associations such as ADI, Confindustria Pesaro and Urbino and Confindustria Marche, with design universities, and with the University of Urbino. These are important relationships that contribute to favoring corporate creativity. The “Innovation and Design” project is emblematic of this type of relationship; it was promoted in 2015 by IFI’s owner and implemented by Confindustria Pesaro and Urbino with the aim of integrating young industrial designers in local SMEs (Conti and Pencarelli, 2016).

5. Discussion and conclusion

The study shows that in IFI S.p.a. industrial design is understood in its broadest sense (Lojacono 2000) and it highlights industrial design’s strategic role in creative and innovative processes (Dumas and Minzberg, 1989; Verganti 2006; Bogers and Horst, 2013), thus strengthening company

competitiveness (Swan et al. 2005). In particular, the study shows that the organizational variables that mainly influence the creativity of designers are: 1) the entrepreneur’s creative role (Napier and Nilsson, 2006); 2) the orientation of the organization towards creativity (Cummings 1965; Oldham and Cummings 1996); 3) the characteristics of tasks and teams (Goldberg and Mazursky 2003; Bilton 2007).

Therefore, the study confirms that in order to increase the creative capability (Napier, Nilson, 2006) and the design innovation capabilities (Landoni et al. 2016) of companies, it is important that there be both the presence of “creative subjects” which provide the creative input and internal company factors which support individual creativity (Bilton 2007). Coherently with the extant literature therefore, one cannot attribute a company’s creativity only to individuals but increasingly to collective elements (Bilton 2007). In addition, this study confirms that the industrial designer plays a role of integration and synthesis between technology, communication, and marketing (Sabbadin 2011), involving several technical and marketing professionals.

In this study it also emerged that in the bar and ice cream parlor furnishings sector the suggestions provided by customers are important to the incremental innovation of products but not significant for radical innovations. This consideration does not correspond to what the literature on innovation has so far sustained, that the demand is the central source of knowledge for the design of new products. With regard to the first organizational variable that affects the creative input of designers and the creative role of the entrepreneur, the study confirms that the company’s creativity should be supported and stimulated first of all by the owner. The entrepreneur-owner of IFI has a strong passion for design and was the first to identify and grasp opportunities related to industrial design, transforming the business from artisanal to industrial, thus becoming an industry leader. Investing in design ever since the 60s, the company has created a knowledge base of design experience, an aspect that in addition to investments in design, contributes to the growth of design innovation capabilities, according to Landoni et al. (2016).

The participatory leadership style (Napier, Nilson, 2006) of the company represents the necessary condition to making creative and innovative processes open to outside influences and to leave employees the freedom to act. The entrepreneur/owner determines the company’s orientation towards creativity (the second important organizational variable that fosters creativity at IFI), especially by encouraging people to take risks (for example,

the words “it cannot be done” are banished from the company) and to not be afraid of making mistakes (Cummings, 1965) as well as by establishing open and collaborative relationships with subordinates (Delbecq and Mills 1985; Oldham and Cummings, 1996).

Concerning the third organizational variable, the characteristics of tasks and teams forged by the company culture, it is worth noting that the team involved in the creative innovative process possesses a variety of different skills (Mumford and Gustafson, 1988) related to R&D, marketing, and industrial design, and that among them there exists a “warm” relationship of trust. In summary, there is a strong bond between the members of the team that deals with innovation. The freedom of expression granted to the designer despite the constraints helps develop the designer’s and thus the company’s creativity (Goldberg and Mazursky 2007).

It is interesting to note that the study revealed several factors, which have been neglected in the literature until now, that foster the company’s creativity: 1) the value of working with an industrial designer who lacks experience in the company’s industrial sector, 2) the role of “warm” and informal integration and interaction between the designer, the R&D, the marketing and the sales departments, and 3) the involvement of designers in all stages of the innovative process, not only in the initial creative phase but right up to the launch of the product on the market.

The study suggests some preliminary managerial implications for enterprises and for policy makers. Enterprises that want to remain viable and competitive should seek to collaborate with industrial designers to encourage the development of continuous qualitative development paths based on creative innovation. The industrial and land development policy-makers are called to support creativity by introducing regulations and granting loans to favor the whole industry, both at district and territory levels, by activating public and private networks in which local authorities, research centers, universities, enterprises, industrial designers, and trade associations are involved. Moreover, it is necessary to enhance the cultural heritage factor, as it is the fundamental resource on which creativity is based.

The main limitation of the study is the use of a single case study which, although it does not allow the generalization of the findings, does allow a preliminary answer to the research question. The framework needs to be tested on other cases and further developed to include other variables

from the external environment. Future research on design-driven innovation should investigate external environmental factors that encourage designer creativity. Other areas that have been underinvestigated in the management literature on industrial design concern how design impacts on business performance and the role of the distribution and communication phases of the product to understand the value of a design product.

Bibliography

€Design (2013) Analytical Framework Paper [WWW document]. URL

http://www.flussobjekte.at/hpall/daten/Design%20WP1%20-%20Version%20202.0_Deliverable%201%20FINAL.pdf

Amabile, Teresa M. (1996), “Creativity and innovation in organization”, *Harvard Business School*, 5 (9), 396-239.

Amabile, Teresa M., Conti Regina, Coon Heather, Lazenby Jeffrey and Herron Michael (1996), “Assessing the work environment for creativity”, *Journal of Academy of Management*, 39, 1154-1184.

Berkowitz, Marvin (1987), “Product shape as a design innovation strategy”, *Journal of Product Innovation Management*, 4, 274 – 83.

Bettiol, Marco and Di Maria Eleonora (2014), “L’innovazione” in *Economia e management delle imprese*, Tunisini Annalisa, Pencarelli Tonino and Ferrucci Luca, eds. Milan: Hoepli.

Bilton, Chris (2007), *Management e creatività*, Blackwell Publishing.

Bloch, Peter H. (1995), “Seeking the ideal form: product design and consumer response”, *Journal of Marketing*, 59 (July), 16 –29.

Borja de Mozota, Brigitte (2006), “The Four Powers of Design: A Value Model in Design Management”, *Design Management Review*, 17, 44–53.

Bogers, Marcel and Horst Willem (2013), “Collaborative prototyping: cross-fertilization of knowledge in prototype-driven problem solving”, *Journal of Product Innovation Management*, 31, 1-21.

Branzi, Andrea (1999), *Introduzione al design italiano. Una modernità incompleta*, Milano: Baldini & Castoldi.

Chiva, Ricardo and Alegre Joaquín (2009), "Investment in Design and Firm Performance: The Mediating Role of Design Management", *Journal of Product Innovation Management*, 26, 424–40.

Csikszentmihalyi, Mihaly (1999), *Implications of a Systems Perspective for the Study of Creativity*, in R. Stenberg (eds.), *Handbook of Creativity*, Cambridge, Cambridge University Press.

Conti, Emanuela and Pencarelli Tonino (2016), "Trade Associations as Mediators between Designer Professionals, SMEs, and Regional Development", *International Journal of Cultural and Creative Industries*, 3, 3, 32-45.

Delbecq, Andre L. and Mills Peter K. (1985), "Managerial practices and enhanced innovation", *Organizational Dynamics*, 14 (1), 24-34.

Dumas, Angela and Mintzberg Henry (1989) "Managing Design/Designing Management", *Design Management Journal*, 1, 37–43.

Eisenhardt, Kathleen M. and Graebner Melissa E. (2007), "Theory building from cases: opportunities and challenges", *Academy of management Journal*, 50, 1.

Gemser, Gerda and Leenders Mark (2001), "How Integrating Industrial Design in the Product Development Process Impacts on Company Performance", *Journal of Product Innovation Management*, 18, 28–38.

Goldenberg, Jacob and Mazursky David (2003), *Creativity in product innovation*, Cambridge: Cambridge University Press.

www.ifi.it

Koenig, Giovanni Klaus (1983), "Design: rivoluzione, evoluzione o involuzione?", *Ottagono*, 68.

Kotler, Philip and Roth Alexander, (1984), "Design. a powerful but neglected strategic tool", *The Journal of Business Strategy*, (Autumn) 16–21.

Landoni, Paolo, Dell'Era Claudio, Ferraloro Gregorio, Peradotto Mattia, Karlsson Helena and Verganti Roberto (2016), "Design Contribution to the Competitive Performance of SMEs: The Role of Design Innovation Capabilities", *Creativity and*

Innovation Management, 25, 4, 484-499.

Lojacono, Gabriella (2001), *Le imprese del sistema arredamento. Strategie di design, prodotto, distribuzione*, Milano: Etas.

Lorenz, Christopher (1986), *The design dimension. Product strategy and the challenge of global marketing*, Oxford (UK): Basil Blackwell..

Luchs, Michael G. and Swan Scott (2011), "Perspective: The emergence of product design as a field of marketing inquiry", *Journal of Product Innovation Management*, 28 (3), 327-345.

Micelli, Stefano (2016), *Fare è innovare. Il nuovo lavoro artigiano*, Bologna: Il Mulino. Montanari, Fabrizio (2011), *Territori creativi. L'organizzazione delle politiche a supporto della creatività*, Milano: Egea..

Mumford, Michael D. and Gustafson Sigrid B. (1988), "Creativity Syndrome: Integration, Application and Innovation", *Psychological Bulletin*, 103,1, 27-43.

Napier, Nanacy K. and Nilsson Mikael (2006), "The Development of Creative Capabilities in and out of Creative Organizations: Three Case Studies", *Creativity and Innovation Management*, 15, 3.

Nebenzahl, Israel D. and Jaffe Eugene D. (1996), "Measuring the Joint Effect of Brand and Country Image in Consumer Evaluation of Global Products", *International Marketing Review*, 13, 4, 5-22.

Nonaka, Ikujiro (1994), "A Dynamic Theory of Organizational Knowledge Creation", *Organization Science*, 5, 1, 14-37.

Nonaka, Ikujiro and Takeuchi Hirotaka (1995), *The Knowledge-Creating Company*, New York: Oxford University Press.

Norman, Donald (2004), *Emotional design. Perché amiamo (o diamo) gli oggetti della vita quotidiana*, Milano: Apogeo.

Oldham, Greg R. and Cummings Anne (1996), "Employee creativity: Personal and contextual factors at work", *Academy of Management Journal*, 39, 607–634.

Pencarelli, Tonino, Migliaccio, Mirella, Splendiani, Simone and Rivetti Francesca (2013), "Creativity and Innovation in Tourism: the Role of Events", in *Tourism Marketing: On Both Sides of the Counter*,

Metin, Kozak et. al. eds. Cambridge Scholars Publishing.

Perks, Helen (2007), "Inter-functional integration and industrial new product portfolio decision making: exploring and articulating the linkages", *Creativity and Innovation Management*, 16, 152-164.

Pilotti, Luciano (2011), "Introduzione. Natura della creatività e processi innovative tra soggettività pluridimensionali ed ecosistemi", in Pilotti Luciano (eds.) *Creatività, innovazione e territorio*, Collana AIDEA, Bologna: Il Mulino.

Rindova, Violina P. and Petkova Antoaneta P. (2007), "When is a New Thing a Good Thing? Technological Change, Product Form Design and Perceptions of Value for Product Innovations", *Organization Science*, 18, 217–32.

Roy, Robin and Riedel, Johann C. (1997), "Design and innovation in successful product competition", *Technovation*, 17, 537-594.

Rothwell, Roy (1994), "Towards the fifth generation innovation process", *International Marketing Review*, 11: 7-31.

Sabbadin, Edoardo (2011), "La creatività tra design e marketing. Il ruolo dei contesti nazionali", in *Creatività, innovazione e territorio*, Pilotti, Luciano, eds. Collana AIDEA, Bologna: Il Mulino.

Senge, Peter M. (1990), *The Fifth Discipline*, Doubleday/Currency.

Swan, Scott, Kotabe Masaaki and Allred, Brent B. (2005) Exploring Robust Design Capabilities: Their Role in Creating Global Products, and their Relationship to Firm Performance. *Journal of Product Innovation Management*, 22, 144–64.

Swink, Morgan (2000), "Technological Innovativeness as a Moderator of New Product Design Integration and Top Management Support", *Journal of Product Innovation Management*, 17, 208–20.

Unioncamere e Fondazione Symbola (2014), *Io sono cultura. L'Italia della qualità e della bellezza sfida la crisi*, Roma: Quaderni di Symbola.

Tsang, Eva W.K. (2013), Case study methodology: casual explanation, contextualization, and theorizing, *Journal of International Management*, n.

19.

Wallace, R. (2001), "Proving Our Value: Measuring Package Design's Return on Investment", *Design Management Review*, 12, 20–7.

Walsh, Vivien Roy Robin (1985), "The designer as 'gatekeeper' in manufacturing industry", *Design Studies*, 6 (3) 127–133.

Verganti, Roberto (2006), "Innovating Through Design", *Harvard Business Review*, 84, 114–22.

Veryzer, Robert W. (2005), "The Roles of Marketing and Industrial Design in Discontinuous New Product Development", *Journal of Product Innovation Management*, 22, 22–41.

Von Hippel, Eric (1988), *The sources of innovation*, Oxford: Oxford University Press.

Yin, Robert K. (2009), *Case Study Research: Design and Methods*, Beverly Hill: SAGE Publication.

Table 1 - Organizational variables favoring corporate creativity

Organizational variable	Description
The creative role of the entrepreneur	The ability to identify opportunities, to perceive risks, to establish a connection with the environment, and develop a collaborative leadership style (Napier and Nilsson, 2006).
The orientation of an organization toward creativity	This orientation means being willing to take risks associated with the creative process (Cummings 1965; Delbecq, Mills, 1985), to make mistakes, to give positive feedback to people (Amabile 1996), to recognize creativity with economic incentives and career opportunities (Amabile et al. 1996). It also entails fixing clear and precise objectives and establishing open and collaborative relationships with subordinates (Delbecq and Mills 1985; Oldham and Cummings,1996).
The characteristics of task and teams	Tasks and activities of individuals and groups must be designed to influence creativity; creativity is greater if people and groups enjoy freedom and autonomy with respect to constraints (Goldenberg and Mazursky 2003) and if the team has different skills, safety (Mumford and Gustafson 1988) and freedom to experiment with different roles (Bilton 2007). Group learning develops the ability of people to look at the bigger picture, beyond individual perspectives and to understand its complexity (Senge 1990).
Pressures in an organization	There are two types of pressure: one exerted by deadlines (there is an inverted U relationship between creativity and pressure) and one related to workload (which always has a negative influence on creativity) (Amabile et al. 1996).
The resources invested to support creativity	All of the resources, whether financial or not, that an organization provides to its members to stimulate creativity (Montanari 2011).
The relationships that the company establishes with	The company joins a community of practice of designers and more generally, is a member of networks that stimulate creative activity (Bilton 2007). In the perspective of the network model

external networks	and of open innovation, innovation is the result of the interaction between companies and actors.
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Source: our extrapolation

Figure 1 - IFI's main products



Start Up



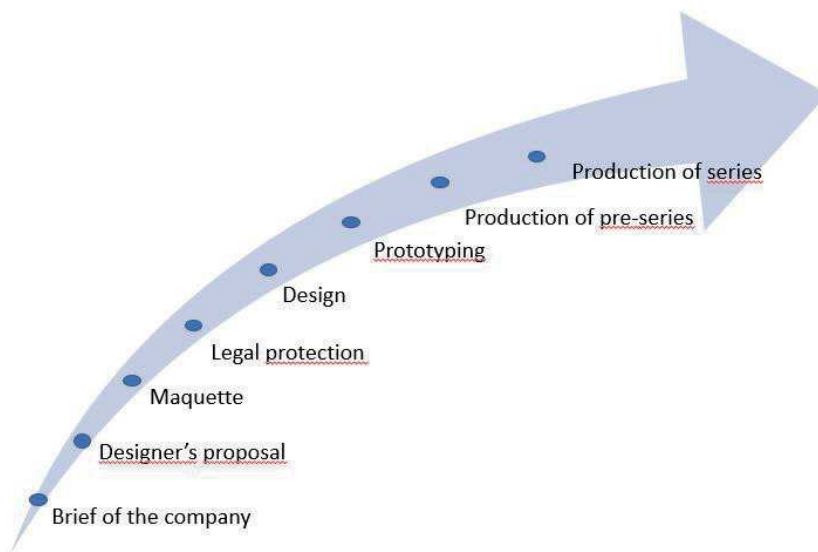
Tonda



Bellevue

Source: www.ifi.it

Figure 2 - The process of developing a radical innovation product at IFI S.p.a.



Source: our extrapolation

Retailers' strategies to promote healthier food purchases in grocery stores: space management and display communication

Abstract

Main objective. Considering that the majority of consumers' food purchases occurs in grocery retailing and that the probability of unplanned purchases in grocery stores is very high, the point of sale is a potentially important opportunity to promote healthy eating through nutrition education and environment modifications. Starting from these considerations, our work intends to explore how the space management and the display communication could influence shopping decisions at the point of sale by driving consumers towards healthy choices. With reference to a specific category (cookies), we have created a new display based on nutritional segmentation criteria, instead of products' attributes ones.

Methodology. The empirical research has combined two qualitative methods. First, a focus groups analysis has been conducted in order to investigate thoughts and attitudes towards the new display. Subsequently, an experiment has been carried out in order to understand how and to what extent customers are willing to change their decisions.

Results. Our findings could provide suggestions for retailers about which kind of communication is more effective and what are the implications in terms of changes in shoppers' purchases.

Key words: instore marketing, healthy choices, space management, display communication, grocery stores.

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Introduction

Nutrition is one of the most critical topics of our time. Individuals are now aware that a proper nutrition is the most appropriate tool to prevent and manage physical dysfunctions such as high cholesterol, hypertension, diabetes and obesity. For this reason they are changing their approach to food, based on a greater focus on healthy diet.

According to recent research, in Italy consumers read carefully the nutritional information on products' labels (55 percent of the population) while the 65 percent of the population looks for products that contain healthful ingredients, such as fibers and natural contents (Nielsen, 2016).

Despite the will of preserve health, the percentage of diseases connected with food has increased over the last few years (Istat, 2016). Given that grocery stores account for over 48% of all food expenditures in the Italian market (MarketLine, 2015), retailers and manufacturers are considered one of the variables responsible for the spread of harmful eating habits. Based on the idea that it is possible to influence shoppers' decisions inside the store (Inman, Winer & Ferraro, 2009), both retailers and manufacturers have invested resources in promoting higher margin products, giving greater importance to profit instead of health goals. In fact, the promotion of convenient and processed ready-to-eat foods have made the adoption and the maintenance of healthy behaviours difficult.

Considering the retailers' intermediary role, grocery stores are the right place where develop in store marketing strategies to prevent diseases related to unhealthy diets (Glanz et al., 2012). Only recently, retailers have begun to managing levers in order to help consumers choose healthy products. The interventions made so far, however, have been oriented to the "rational" mind and they have produced unsatisfactory results. In addition, they have focused only on the promotion of healthy food

categories, such as fruit and vegetables. On the contrary, there are few studies about how to give value to the healthy products within packaged food categories. But the framework of the in store marketing levers suggests opportunities for encouraging and facilitating healthier food purchasing (Foster et al., 2014). Starting from these considerations, our work intends to find new ways to reach the long period purpose of driving consumers to buy and consume more healthy products inside the store. Specifically, we aim to identify new in store marketing strategies in order to help shoppers choose healthy products within packaged food categories.

To pursue this goal, the paper is organized as follows. First, a literature review about the importance of retailers in influencing consumers' decisions and the interventions made so far is presented. Secondly, we propose a new in store marketing strategy which can drive shoppers' decisions towards healthier products. Then, we present the research questions, the methodology and the findings. Finally, last sections are devoted to conclusion and managerial implications and limitations and future direction.

Theoretical framework

Good nutrition is essential for health (Mhurchu et al., 2010). In fact, several studies have given evidences about the link between what we eat and our health (Doll & Peto, 1981; Ulbricht & Southgate, 1991; Rimm et al., 1996; Povey et al., 1998). In literature, in particular, many contributions have defined the meaning of 'healthy' and 'unhealthy' eating. According to them, 'healthy products' refer to food high in fiber, vitamins, and fresh. On the contrary, 'unhealthy products' refer to products high in fat, sugar, additives and processed (Povey et al., 1998).

Grocery stores can be considered the primary locations for food purchases (Glanz et al., 2012) as they account for over 48%

of all food expenditures (MarketLine, 2015). Retailers and manufacturers, thus, are among the causes considered responsible for the diffusion of chronic diseases connected with diet (Lugli, 2015). Based on the idea that it is possible to influence consumers' behavior inside the store and stimulate impulsive purchases towards profitable products (Hirshman & Holbrook, 1982; Bucklin & Lattin, 1991; Donovan et al., 1994; Beatty & Ferrel, 1998; Inman, Winer, & Ferraro, 2009; Bell et al., 2011), both retailers and manufactures have started to implement marketing strategies aimed to incentive the purchase of inexpensive, ready-to-eat and altered food (Cohen et al., 2016).

On one hand, retailers have adopted special in-store displays strategically positioned along the path to purchase (e.g. candy at the cash register); on the other hand, manufacturers have advertised and promoted low-nutrient foods in ways that encourage spur of the moment and emotion related purchases, by making the packaging of the products and the related messages more attractive (Cohen et al., 2016).

The abundance and the communication of these products have made the maintenance and the changes in dietary patterns very difficult (Anderson et al., 2000).

Considering the retailers' intermediary role, grocery stores are the right place where develop in store marketing strategies to prevent diseases related to unhealthy diets (Glanz et al., 2012).

Most of the literature about healthy behaviors is based on the Theory of Planned Behavior (Ajzen & Timko, 1986; Ajzen, 1991; Godin & Kok, 1997; Povey et al., 2000; Noar et al., 2007; Louis et al., 2009) which assumes that a high level of self-control is a prerequisite for making healthy food decisions (Hofmann, Friese, & Wiers, 2008; Schwarzer, 2008). Self-control can be defined as the ability to alter or override impulsive responses and regulate

thoughts and behavior (Vohs & Baumeister, 2004). Many researchers have found that high levels of self-control are related to several positive effects on health-related outcomes, while low self-control has been associated with adverse consequences such as consuming sugary and fatty foods (de Ridder et al., 2012; Tangney et al., 2004). This means that, when choosing products, shoppers plan the purchasing of healthy food, seen as something 'virtuous but not enjoyable' (Povey et al., 1998). For these reasons, the interventions made so far have tried to increase the level of self-control by speaking to consumers' rational mind (Lugli, 2015). On one hand, retailers have focused on availability, which refers to accessibility of consumers products (Cohen et al., 2000; Paul & Rana, 2012) in the believe that the abundance availability of healthy food could provides a tacit message which implies that people need to have these product (Song et al., 2009). On the other hand, retailers have developed educational strategies, such as informative campaigns, nutrition education posters and pop-out flyers, explaining the benefit of a healthy diet.

However, it has been demonstrated that self-control relies on limited resources (Hagger, Wood, Stiff, & Chatzisarantis, 2010; Baumeister, 2000). Since our cognitive resources tend to get soon exhausted, the adoption and maintenance of right behaviors is quite difficult, as it is seen as something requiring continuous efforts and implying sacrifices. This means that the impact of the interventions made so far is limited (Foster et al., 2014).

Recently, some authors have started to highlight that whether food decisions will be healthy or unhealthy depends on environmental cues available in a situation (Hofmann et al., 2008; Salmon et al., 2013). This means that, if managed properly, in store marketing levers could encourage and facilitate healthier food purchasing (Foster et al., 2014).

Product placement and instore communication can be considered point of purchases innovative approaches. Some authors have stated that space arrangement, the amount of shelf-space, the prominence of location, such as at the end of an aisle, merchandising displays, department signage and shelf tags could influence healthy purchase decisions (Curhan et al., 1974; Glanz et al., 2012). In particular, shelf labels and/or signage can display information about product' nutritional values and suggest the adequate quantity to consume (Glanz et al., 2004). While there is a wide literature about the interventions made by retailers in promoting healthy food categories, such as fruit and vegetables (Ammermarman et al., 2002; Pollard et al., 2002; Glanz & Yaroch, 2004; Bogers et al., 2004; Farley et al., 2009; Payne & Niculescu, 2012;), there are few studies about how to give value to the healthy products within packaged food categories (Seymour et al., 2004). Referring to packaged food, some researchers have tried to assign a shelf tag to each product of the categories selected by giving information processed by Nutrition Information System (Borgmeier et al., 2009). The Nutrition Information System is based on an algorithm which take into account several nutrition information (vitamins, minerals, fiber, whole grains, as well as saturated fat, trans-fat, added sodium and added sugars) and assign a scores to each product analyzed. Lower scores mean that the product has low nutritional values, while high scores mean that it has good nutritional values. Generally, the scores go from zero or one to three or five, depending on the algorithm used. The main goal of this tool is to summarize all the nutrition information of the products and present them in an immediate and effective way. Many studies have, in fact, found that one of the main problem that discourages shopper from reading the nutritional labels is huge amount of information presented

and the absence of time available to do that (Kelly et al., 2009).

By looking at the results, some authors have found no significant changes in purchasing behavior after the implementation of the nutritional shelf tags (Achabal et al., 1987; Kristal et al., 1997; Muller, 1984; Soriano & Dozier, 1978; Cawley et al., 2014). Some others, otherwise, have found that the consumer health benefit of the nutrition rating system was to decrease sales of less nutritious foods rather than to increase sales of nutritious foods (Cawley et al., 2014). This means that shoppers didn't switch to buy nutritious versions of food in the same category, but they simply bought fewer items in that category. The only categories in which shoppers increased purchases of nutritious items were prepared foods, yoghurt, butter, cookies and crackers, dried fruit and nuts (Levy et al., 1985; Rodgers et al., 1994; Schucker et al., 1992; Curhan et al., 1974; Cawley et al., 2014).

One possible reason of this limited role of nutritional labels in promoting eating healthily is the great variety of food products offered by grocery retailers that make the comparison between products hard. Food products still remain exposed on shelves in ways that fail to help consumers easily find the healthier alternatives on the shelf.

Starting from these considerations, our work intends to find new ways to help consumers choosing healthier product among packaged food inside grocery stores. In particular, we have proposed a new display of a specific category (cookies) which segments the products based on nutritional values and show the shoppers the best alternatives by using different signs of communication. By leveraging shelf tag communication and space management in an innovative way, we believe that retailers could make shoppers' decisions easier during the shopping trip and encourage them toward the purchasing and the consumption of good food. These strategies could reach better

results in terms of changing shopper habits for at least two reasons. First, both retailers and manufacturers have recognized that the store factors, and in particular merchandising and communication, are more important than any customer-level factor in influencing purchase (Shankar & Muruganatham, 2013; Moha et al. 2013; Cohen et al., 2016). Second, previous studies have demonstrated that shoppers are interested in healthy issue and they are looking for shelf labels in order to identify healthy products inside the store (Glanz et al., 2012). While previous researches have focused on the nutritional values communication at a product level, we have implemented the nutritional communication at the category level and we have created a new display based on nutritional segmentation criteria.

Research questions

The main goal of our research is to find new ways to help consumers choosing healthier product among packaged food inside grocery stores. Through the new display based on nutritional information, as described below, we intend to answer the following questions:

- Q1. *Which perceptions consumers have about the new display?*
- Q2. *Does the new display influence consumers' willingness to buy healthier products?*
- Q3. *What type of communication is more effective in influencing shoppers' purchases?*

In order to answer these research questions, we have adopted two qualitative methods. First, a focus groups analysis has been conducted and subsequently, an experiment has been carried out. During the focus groups, we have investigated consumers' thoughts and attitudes towards the new display (Q1). We have answered the second question (Q2) by using both methods. After discussing about the willingness to change habits, we have

measured the switch between segments by recreating the moment of the choice in a fictitious place. The experiment has allowed us also investigating which type of communication is more effective (Q3). In the next paragraphs, we present firstly the procedure followed for the construction of the new display. Then, we present the two studies and we illustrate, for each of them, the methodology used and the findings obtained.

Procedure

A leading Italian grocery chain gave us the possibility to access its data system (prices, sales, products' allocation and nutritional values information) about the cookies category referred to one single store, located in the north of the country. The choice of the cookie category was based on the positive outcomes about the efficacy of NIS in helping consumers purchasing healthier products (Cawley et al., 2016). Before starting the experiment, we visited the store in order to take note of the criteria of products' allocation on the shelf and we have found that the segmentation was based on product characteristics (pastry, filled biscuit and cookies) and brand (national brands and private labels).

Thanks to the Health Star Rating System, we have rated the overall nutritional profile of each packaged cookies displayed in the store. The algorithm used was developed by Food Standards Australia New Zealand and other technical and nutrition experts.

This rating is based on scores given to energy (KJ), risk nutrients (as saturated fat, sodium and sugars) and positive nutrients (in particular dietary fiber, protein and the proportion of fruit, vegetable, nut and legume content). The values considered by the algorithm are based on a consistent measure of 100g or 100mL of a product. This means that the star ratings of similar products can be compared at-a-glance. The total score obtained for each product has been translated into a number of star,

whose range goes from ½ a star to 5 stars. The more stars, the healthier is the product. Because of space allocation logics, we have grouped the scores in four cluster, assigning a rating from 1 (scarce nutritional quality) to 4 (high nutritional quality). Each item has been assigned to a specific segment (4 = very high nutritional quality; 3 = high nutritional quality; 2 = medium nutritional quality; 1 = scarce nutritional quality). Then, we have created a new cookies display composed by four vertical nutritional segments. During this procedure, we have rearranged the products already displayed in store and for each of them, we have tried to maintain the number of facings and the position on the shelf established by the retailer. The nutritional segments have been ordered from the healthier to the less healthy, according to the direction of travel of the shoppers. The main reason was to promote healthier products as, according to merchandising logics, the product positioned at the beginning of the aisle are more visible and, so, are more likely to be purchased (Curhan et al., 1974; Glanz et al., 2012).

Finally, we have communicated the new display using two different alternative signs: stars (more rational) versus silhouette (more emotional). The aim was to test different type of communication in order to find out the more effective one. Specifically, in the first alternative each segment has been communicated by using the number of stars correspondent to the respective score, and wanted to stimulate cognitive responses, since stars are usually used to indicate ranks (Turnbull, 2007). The second alternative, instead, represents each segment with a human silhouette from the leaner to the fatter and wants to be more impactful by speaking to the emotional mind (Lugli, 2015). It is important to note that no information about prices was given.

Study 1 **Methodology**

Focus group discussion took place in April 2016 and involved 24 consumers in three groups of eight. We used a screening questionnaire in the recruitment process to ensure that all participants met the criteria selected for our research. Be responsible of food expenditures was a prerequisite for the participants' selection. Each discussion lasted for about two hours and was sound and video recorded. Each session has been videotape and verbatim transcribed. The discussion has been interpreted taking into consideration the different demographics characteristics on the belief that gender (male vs female) and age could affect consumers' choice towards food products. The transcripts were entered into T-Lab, a software package especially designed for the analysis of qualitative research.

Findings

In order to answer our first research question (Q1), the new cookies display was projected during each discussion. After explaining the segmentation criteria to focus groups participants, they were asked about their opinion, beliefs, thoughts and effectiveness of the strategy. In particular, participants were asked the following questions: 'What do you think about this kind of segmentation? Does this kind of segmentation influence your willingness to change your choice?'. This activity led to identify a series of categories.

In particular, the words and the sentences associated with the first question have been grouped into four categories. Most participant have considered the new nutritional segmentation as a way to help consumers saving time during the shopping trip (58.8 percent of the words and sentences recall it). Time constraint has been recognized as a major problem which results in waiving reading and comparing different products labels. One participant stated: "I do not waste time

reading five different labels... this layout is more impactful". The 23.5 percent of the statements refer to the educational role of the communication, while the 11.8 percent consider the new segmentation useful only for individuals who are interesting in health issues. Finally, the 5.9 percent of the statements are associated with 'disorientation'. Some participants stated that the new arrangement isn't helpful, as it changes the traditional logic of products' aggregation, which they are used to find inside the store.

Regarding the new display's ability to influence purchasing decisions (Q2), 30% of consumers stated that they are willing to change their choice towards healthier products. The remaining showed a limited willingness to change their choice, for different reasons. 40% of participants are less available to change habits because they are not heavy consumers of the category, thus they are less sensible towards its nutritional facts. During the focus group discussion, they said "I wouldn't change my choice, since I consume the category only occasionally. I will pay more attention if it is about category that I consume every day'. Some consumers (20% of participants) prefer to reduce the quantity consumed instead of changing their preferred brands or products. They said 'I don't want to change my choice but I would eat less amounts of cookies'. Finally, a small percentage of consumers (10% of participants) gives small importance to nutritional facts and said "I would not change my purchase. I don't care about the communication'.

By doing this classification, we have found that the responses have been affected by the gender and the age of the participants. Specifically, the group of people who is willing to change choices is entirely composed by women between forty and sixty, while participants who don't care about the communication are men between forty and sixty. Young people (20-40 years

old) of both genders, are found among those who eat cookies only occasionally and don't want to change product but are willing to consumer fewer cookies.

Study 2 **Methodology**

The experiment was aimed to explore consumers' behavior in front of the new display, investigate consumer's willingness to change products, and the efficacy of the communication. Three stimuli were used during the experiment: the "traditional display" (i.e. the cookies display founded instore), the "stars display" (i.e. the nutritional display communicated with stars symbol) and the "silhouettes display" (i.e. the nutritional display communicated with silhouettes symbol).

A sample of 115 individuals has been recruited and divided into two groups, as the number of communication alternatives proposed. Members of the first group have been placed in front of the traditional display and asked to select one product in one minute. Then, they were asked to make the same choice in front of the stars display. To facilitate the comprehension of the new display, an information card was given to them before the choice. The same procedure has been followed for the second group, which has been exposed to the silhouette stimulus. In order to understand whether or not the shopper has changed the quality nutrition of his choice, we have assigned to each product chosen in front of the traditional display the correspondent score (from 1 to 4) and we have taken note of the rating of the product chosen on front of the new display.

It is important to notice that each display was projected in different places in order not to create confusion and affect the responses. Taking into consideration the results of the focus groups conducted before the experiment, we have tried to override the effect of age, gender, health attitude and frequency of purchase, which

have been found to affect shoppers' attitude towards the nutritional value segmentation. Specifically, we have used a screening questionnaire in the recruitment process in order to be able to create two homogeneous groups. Each of them had the same proportion of male and female, the same proportion of people who buy cookies frequently and occasionally, the same proportion of consumers who are careful about health and the same average age. Additionally, the time given for the choice had the aim to conform the decision's conditions. Data were processed using SPSS statistical software. The analysis tool used was the contingency table that allowed us testing the association between phenomena if at least one of them is measured on a nominal or ordinal scale. The chi-square test had been used in order to test the null hypothesis of absence of associations between them, at a .05 significant level.

Findings

In order to answer to the second question (Q2), we have compared the score of the two products chosen for each participant. The aim was to understand if the new nutritional segmentation is able to lead consumers to make better choices, in terms of better nutritional quality.

The results (Table II) show that, overall, 33 percent of shoppers interviewed have changed the nutritional quality of the choice, while the 67 percent of the sample have not been affected by the new segmentation. Within this 67 percent of respondent who haven't changed their choice, there is a 28.7 percent of people whose first choice was a product with the highest nutritional quality score. So, only a 38.3 percent of consumers have decided not to improve the quality of the product chosen.

Table II also shows the intensity of purchase change for each communication stimulus. What is important to notice is that none of the participants has decided to select a product with a lower nutritional quality than the one of the product initially chosen.

Table II. Intensity of change of the purchase

		Nutritional quality – new display				Tot	
		1	2	3	4		
Tot	Nutritional	1	20,9%	7,0%	2,6%	6,1%	36,5%
	quality	– 2		15,7%	4,3%	5,2%	25,2%
	traditional	3			1,7%	7,8%	9,6%
	display	4				28,7%	28,7%
	Tot						100,0%
Stars	Nutritional	1	10,2%	11,8%		8,5%	30,5%
	quality	– 2		15,3%	5,1%	3,4%	23,7%
	traditional	3			1,7%	11,9%	13,6%
	display	4				32,2%	32,2%
	Tot						100,0%
Silhouettes	Nutritional	1	32,1%	1,8%	5,4%	3,6%	42,9%
	quality	– 2		16,1%	3,6%	7,1%	26,7%
	traditional	3			1,8%	3,6%	5,4%
	display	4				25,0%	25,0%
	Tot						100,0%

In order to answer to the third question (Q3), we have considered the two groups separately. The aim is to understand which is the more effective way to communicate the nutritional value segmentation and which communication leads shoppers to healthier choices. Given that some people haven't changed their choices because they had already chosen a product with the highest nutritional score, we have decided to take into account only the respondents who had the possibility to improve their decisions. This means that we have considered only respondent whose first choice was a product with 1, 2 or 3 nutritional quality score. The final sample is composed by 82 respondent.

The statistical output (Table III) shows the presence of a significant association between "communication stimulus" and "nutritional quality change" at a significance level of .005 (Chi-square 5.859; $p < .005$; Phi -0.267; $p < .005$; V Cramer .267; $p < .005$).

Table III. Communication stimulus * Nutritional quality change

		Nutritional quality change			
		No			
		change	Change	Tot	
Communication stimulus	Stars	Number	16	24	40
		% of communication stimulus	40,0%	60,0%	100,0%
		Std. resid.	-1,2	1,3	
	Silhouettes	Number	28	14	42
		% of communication stimulus	66,7%	33,3%	100,0%
		Std. resid.	1,2	-1,2	
Tot		Number	44	38	82
		% of communication stimulus	53,7%	46,3%	100,0%

In particular, the results show that shoppers who have seen the stars display are more willing to improve the quality of their choice (60 percent) than shoppers who have been exposed to the silhouettes stimulus (33.3 percent).

General Discussion

Our research aimed to find new ways to help consumers choosing healthier product among packaged food inside grocery stores. Specifically, we have proposed a new display which segments the products based on nutritional values in order to make shoppers' decisions easier during the shopping trip and encourage them toward the purchasing and the consumption of good food. Therefore, we have tested two different communication alternatives in order to find out the more effective one. Our findings bring out important considerations on the effectiveness of in-store marketing levers, managed by retailers with the aim to stimulate healthy purchases at the point of sale.

Firstly, the research highlight that the new marketing strategy is appreciated by the majority of the individuals interviewed. In particular, the new display is considered useful as it helps consumers saving time when choosing the products and as it plays an informative role. However, the usefulness is associated with the interest in healthy issue. According to some participant people who are not interested in adopting a healthy diet, are not influenced by the nutritional segmentation and consider the display confusing.

Secondly, the research has found that gender, age, health interest and frequency of consumption influence the willingness to change purchases. In particular, women are found to be more inclined to change their habits and experimenting healthier products, while men are less prone to change their choices and prefer taste instead of health. In addition, young people try to find a compromise by eating less amount of their favorite product if this

has low nutritional quality. While age, sex and habits have been widely discussed in the literature (Ajzen, 1991; Rodin, 1986; Umberson, 1992; Tepper et al. 1997; Wardle et al., 2004), the frequency has never been taken into account but it has been found to be a crucial element. By considering the frequency of purchase, retailers could improve the effectiveness of their strategies, since individuals have stated to be more careful about products consumed every day.

Finally, it has been found that stars are more effective than silhouettes in changing consumers habits. This means that, in this case, a rational communication is better able to influence purchasing decisions instead of a more emotional one. The limited effectiveness of the silhouettes could be explained by the fact that they are associated primarily to physical conditions and not to health in its broadest definition. Another possible reason come from the fact that consumers are used to face with 'stars' since they are a common way to rank objects and performances while silhouettes are newer and never used before.

Conclusions, limitations and future research

Our work is a first attempt to support retailers in promoting healthier choices by managing instore marketing levers - space management and display communication – in an innovative manner. Our findings could suggest retailers new approaches in the management of the categories based on criteria of segmentation (nutritional facts) which seem to better answer to consumers' needs. In particular, this research suggests that gender, age, health interest, frequency of consumption and way of communication are important variables that must be taken into account by retailers before the implementation of a strategy.

Our research, however, has some limitations. First of all, some limits are associated with the methodologies used.

On one hand, limitations of focus groups include the tendency for certain types of socially acceptable opinion to emerge, and for certain types of participant to dominate the research process (Smithson, 2000). On the other hand, the experiment has limitations connected with the fact that it is a simulation and is far from the reality, since external variables are controlled and their effects restrained.

We haven't, in fact, considered the price variable in order to isolate the effectiveness of the segmentation and the communication. Price is found to be one the main obstacles in adopting and maintaining healthy eating behaviors, since the price of healthy products are higher than the price of unhealthy ones (Pollard et al., 2002; Glanz et al., 2004; Sallis et al., 2008, Mhurchu et al., 2010).

Future researches could consider the price variable in order to provide a complete framework of the choice. Finally, it would be useful to implement the strategy proposed inside the store. This could give important information about shoppers' behaviors in a real situation and could allow us to have data about the sellout.

References

Achabal, D. D., McIntyre, S. H., Bell, C. H., & Tucker, N. (1987). The effect of nutrition POP signs on consumer attitudes and behavior. *Journal of Retailing*.

Ajzen, I. (1991). *The Theory of Planned Behavior*. Organizational Behavior and Human Decision.

Ajzen, I., & Timko, C. (1986). Correspondence between health attitudes and behavior. *Basic and Applied Social Psychology*, 7(4), 259-276.

Ammerman, A., Lindquist, C., Lohr, K., & Hersey, J. (2002). The efficacy of behavioral interventions to modify dietary fat and fruit and vegetables intake: a review of the evidence. *Preventive Medicine*, 25-41.

Anderson, E. S., Winett, R. A., & Wojcik, J. R. (2000). Social-cognitive determinants of

nutrition behavior among supermarket food shoppers: A structural equation analysis. *Health Psychology*, 19(5), 479.

Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of consumer Research*, 28(4), 670-676.

Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of retailing*, 74(2), 169-191. [http://dx.doi.org/10.1016/s0022-4359\(99\)80092-x](http://dx.doi.org/10.1016/s0022-4359(99)80092-x)

Bell, D., Corsten, D., Knox, D. (2011), "From Point of Purchase to Path to Purchase: How Preshopping Factors Drive Unplanned Buying", *Journal of Marketing*, 75(1), 31-45, DOI: 10.1509/jmkg.75.1.31

Bogers, R. P., Brug, J., van Assema, P., & Dagnelie, P. C. (2004). Explaining fruit and vegetable consumption: the theory of planned behavior and misconception of personal intake levels. *Appetite*, 42(2), 157-166.

Borgmeier, I., & Westenhoefer, J. (2009). Impact of different food label formats on healthiness evaluation and food choice of consumers: a randomized-controlled study. *BMC public health*, 9(1), 1.

Bucklin, R. E., & Lattin, J. M. (1991). A two-state model of purchase incidence and brand choice. *Marketing Science*, 10(1), 24-39. <http://dx.doi.org/10.1287/mksc.10.1.24>

Cawley, J., Sweeney, M. J., Sobal, J., Just, D. R., Kaiser, H. M., Schulze, W. D., ... & Wansink, B. (2015). The impact of a supermarket nutrition rating system on purchases of nutritious and less nutritious foods. *Public health nutrition*, 18(01), 8-14.

Cohen, D. A., Scribner, R. A., & Farley, T. A. (2000). A structural model of health behavior: a pragmatic approach to explain and influence health behaviors at the population level. *Preventive medicine*, 30(2), 146-154.

Cohen, D. A., & Lesser, L. I. (2016). Obesity prevention at the point of purchase. *Obesity Reviews*.

Curhan, R. C. (1974). The effects of

merchandising and temporary promotional activities on the sales of fresh fruits and vegetables in supermarkets. *Journal of Marketing Research*, 286-294.

Doll, R., & Peto, R. (1981). The causes of cancer: quantitative estimates of avoidable risks of cancer in the United States today. *Journal of the National Cancer Institute*, 66(6), 1192-1308.

Donovan, R., Rossiter, J., Marcolyn, G., & Nesdale, A. (1994). Store Atmosphere and Purchasing Behavior. *Journal of Retailing*, 70(3), 283-294. [http://dx.doi.org/10.1016/0022-4359\(94\)90037-x](http://dx.doi.org/10.1016/0022-4359(94)90037-x)

de Ridder, D. T., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012). Taking stock of self-control a meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, 16(1), 76-99.

Farley, T. A., Rice, J., Bodor, J. N., Cohen, D. A., Bluthenthal, R. N., & Rose, D. (2009). Measuring the food environment: shelf space of fruits, vegetables, and snack foods in stores. *Journal of Urban Health*, 86(5), 672-682.

Foster, G. D., Karpyn, A., Wojtanowski, A. C., Davis, E., Weiss, S., Brensinger, C., ... & Leuchten, D. (2014). Placement and promotion strategies to increase sales of healthier products in supermarkets in low-income, ethnically diverse neighborhoods: a randomized controlled trial. *The American journal of clinical nutrition*, 99(6), 1359-1368.

Glanz, K., & Yaroch, A. L. (2004). Strategies for increasing fruit and vegetable intake in grocery stores and communities: policy, pricing, and environmental change. *Preventive Medicine*, 39, 75-80.

Glanz, K., Bader, M. D., & Iyer, S. (2012). Retail grocery store marketing strategies and obesity: an integrative review. *American journal of preventive medicine*, 42(5), 503-512.

Godin, G., & Kok, G. (1996). The theory of planned behavior: a review of its

applications to health-related behaviors. *American journal of health promotion*, 11(2), 87-98.

Hagger, M. S., Wood, C., Stiff, C., & Chatzisarantis, N. L. (2010). Ego depletion and the strength model of self-control: a meta-analysis. *Psychological bulletin*, 136(4), 495.

Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: emerging concepts, methods and propositions. *The Journal of Marketing*, 92-101. <http://dx.doi.org/10.2307/1251707>

Hofmann, W., Friese, M., & Wiers, R. W. (2008). Impulsive versus reflective influences on health behavior: A theoretical framework and empirical review. *Health Psychology Review*, 2(2), 111-137.

Inman, J.J., Winer, R.S. and Ferraro, R. (2009), "The Interplay Among Category Characteristics, Customer Characteristics, and Customer Activities on In-Store Decision Making", *Journal of Marketing*, 73(5), 19-29, DOI: 10.1509/jmkg.73.5.19

Kelly, B., Hughes, C., Chapman, K., Louie, J. C. Y., Dixon, H., Crawford, J., ... & Slevin, T. (2009). Consumer testing of the acceptability and effectiveness of front-of-pack food labelling systems for the Australian grocery market. *Health promotion international*, 24(2), 120-129.

Kristal, A. R., Goldenhar, L., Muldoon, J., & Morton, R. F. (1997). Evaluation of a supermarket intervention to increase consumption of fruits and vegetables. *American Journal of Health Promotion*, 11(6), 422-425.

Levy, A. S., Mathews, O., Stephenson, M., Tenney, J. E., & Schucker, R. E. (1985). The impact of a nutrition information program on food purchases. *Journal of Public Policy & Marketing*, 1-13.

Louis, W., Chan, M., & Greenbaum, S. (2009). Stress and the Theory of Planned Behavior: understanding healthy and unhealthy eating intentions. *Journal of Applied Social Psychology*, 472-493.

Lugli, G. (2015). *Cibo, salute e business*. Egea.

Mhurchu, C. N., Blakely, T., Jiang, Y., Eyles, H. C., & Rodgers, A. (2010). Effects of price

- discounts and tailored nutrition education on supermarket purchases: a randomized controlled trial. *The American journal of clinical nutrition*, 91(3), 736-747.
- Mohan G., Sivakumaran B., & Sharma P. (2013). Impact of store environment on impulse buying behavior. *European Journal of Marketing*, 47(10), 1711-1732. <http://dx.doi.org/10.1108/ejm-03-2011-0110>
- Muller, T. E. (1984). The use of nutritive composition data at the point of purchase. *Journal of Nutrition Education*, 16(3), 137-141.
- Noar, S., Chabot, M., & Zimmerman, R. (2007). Applying health behavior theory to multiple behavior change: considerations and approaches. *Preventive Medicine*, 275-280.
- Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of consumer Marketing*, 29(6), 412-422.
- Payne, C. R., & Niculescu, M. (2012). Social meaning in supermarkets as a direct route to improve parents' fruit and vegetable purchases. *Agricultural and Resource Economics Review*, 41(1), 124.
- Pollard, J., Kirk, S. L., & Cade, J. E. (2002). Factors affecting food choice in relation to fruit and vegetable intake: a review. *Nutrition research reviews*, 15(02), 373-387.
- Povey, R., Conner, M., Sparks, P., James, R., & Shepherd, R. (1998). Interpretations of healthy and unhealthy eating, and implications for dietary change. *Health Education Research*, 13(2), 171-183.
- Povey, R., Conner, M., Sparks, P., James, R., & Shepherd, R. (2000). The theory of planned behavior and healthy eating: Examining additive and moderating effects of social influence variables. *Psychology & Health*, 14(6), 991-1006.
- Rodin, J. (1986). Aging and health: Effects of the sense of control. *Science*, 233(4770), 1271-1276.
- Rodgers, A. B., Kessler, L. G., Portnoy, B., Potosky, A. L., Patterson, B., Tenney, J., ... & Mathews, O. (1994). "Eat for Health": a supermarket intervention for nutrition and cancer risk reduction. *American Journal of Public Health*, 84(1), 72-76.
- Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. *Health behavior and health education: Theory, research, and practice*, 4, 465-486.
- Salmon, S. J., Fennis, B. M., de Ridder, D. T., Adriaanse, M. A., & De Vet, E. (2014). Health on impulse: when low self-control promotes healthy food choices. *Health Psychology*, 33(2), 103.
- Seymour, J. D., Yaroch, A. L., Serdula, M., Blanck, H. M., & Khan, L. K. (2004). Impact of nutrition environmental interventions on point-of-purchase behavior in adults: a review. *Preventive Medicine*, 39, 108-136.
- Shankar, R., & Muruganantham, G. (2013). A Review of Impulse Buying Behavior. *International Journal of Marketing Studies*, 5(3), 149-159. <http://dx.doi.org/10.5539/ijms.v5n3p149>
- Smithson, J. (2000). Using and analyzing focus groups: limitations and possibilities. *International journal of social research methodology*, 3(2), 103-119.
- Schucker, R. E., Levy, A. S., Tenney, J. E., & Mathews, O. (1992). Nutrition shelf-labeling and consumer purchase behavior. *Journal of Nutrition Education*, 24(2), 75-81.
- Schwarzer, R. (2008). Modeling health behavior change: How to predict and modify the adoption and maintenance of health behaviors. *Applied Psychology*, 57(1), 1-29.
- Song, H. J., Gittelsohn, J., Kim, M., Suratkar, S., Sharma, S., & Anliker, J. (2009). A corner store intervention in a low-income urban community is associated with increased availability and sales of some healthy foods. *Public health nutrition*, 12(11), 2060-2067.
- Soriano, E., & Dozier, D. M. (1978). Selling nutrition and heart-healthy diet behavior at the point-of-purchase. *Journal of Applied Nutrition*.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of personality*, 72(2), 271-324.

Tepper, B. J., Choi, Y. S., & Nayga, R. M. (1997). Understanding food choice in adult men: influence of nutrition knowledge, food beliefs and dietary restraint. *Food Quality and Preference*, 8(4), 307-317.

Turnbull, D. (2007, April). Rating, voting & ranking: designing for collaboration & consensus. In CHI'07 extended abstracts on Human factors in computing systems (pp. 2705-2710). ACM.

Ulbricht, T. L. V., & Southgate, D. A. T. (1991). Coronary heart disease: seven dietary factors. *The Lancet*, 338(8773), 985-992.

Umberson, D. (1992). Gender, marital status and the social control of health behavior. *Social science & medicine*, 34(8), 907-917.

Vohs, K. D., & Baumeister, R. F. (2004). Understanding self-regulation: An introduction. *Handbook of self-regulation: Research, theory, and applications*, 1-9.

Wardle, J., Haase, A. M., Steptoe, A., Nillapun, M., Jonwutiwes, K., & Bellis, F. (2004). Gender differences in food choice: the contribution of health beliefs and dieting. *Annals of Behavioral Medicine*, 27(2), 107-116.

The Internet of Things: The Next Big Thing for New Product Development?

Abstract

More and more physical products are equipped with sensors or RFID that connect them to the Internet; the network of these 'smart products' is known as the Internet of Things. Connected products generate large amounts of data (smart product data) that can provide insights in the product's environment and use context. Although IoT data is expected to be of great value for businesses, it is not known how this data affects the key success factors of product innovation in a business context.

By means of a literature study, an expert study and an interview with PostNL this study examines how smart product data as input in the New Product Development process affects key success factors of the process, namely (1) maximized fit with customer requirements, (2) minimized development cycle time and (3) controlled development costs.

Both literature and experts agree that smart product data will help maximize the fit with customer requirements by providing extensive customer insight. In addition, the cycle time of the New Product Development process will most likely decrease, according to the literature and experts. However, opinions were more divided about the effect of the input of smart product data on cost control.

Key words: Internet of Things, New Product Development, Big Data, Smart Products, Sensor Data, Customer Insight

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1. INTRODUCTION

The 'Internet of Things' (IoT) is a popular discussion topic among academics and practitioners. It entails the idea of an extensive network of physical objects that contain sensors, RFID, actuators and other mobile data transmitting devices, connected to the internet. Such sensing, connected objects - also called 'smart products' - are able to retrieve, store and share large amounts of data. Because of the sensing abilities of these smart products, this data can provide an insight in the product's environment and use context.

The concept has been around since the late 80's but due to immense improvements in processing power, device miniaturization and network benefits of ubiquitous wireless connectivity, the Internet of Things is growing faster than ever before. (Porter & Heppelman, 2014) It is expected that the amount of smart products will soon overtake the amount of connected individuals: Bauer et al. (2014) predict that up to 30 billion objects will be connected by 2020. This rapid growth of smart products and their accompanying data flows will not leave businesses undisturbed. With the Internet of Things as the next wave in the development of the internet and a new source of large amounts of data, businesses face new opportunities as well as new challenges. (Porter & Heppelmann, 2014)

Although opportunities and challenges of the IoT have been often debated by both academics and practitioners not much attention has been placed on the potential impact of IoT generated data as input in one of the most important marketing processes: the New Product Development process. It is not known what effect the various opportunities and challenges can have on the actual success factors of this process, namely (1) maximized fit with customer requirements, (2) minimized development cycle time and (3) controlled development costs. (M.A. Schilling, 2013)

Therefore, this study will address the impact of data retrieved from the Internet of Things on success factors of the New Product Development process.

1.1 Problem Definition

In order to structurally identify what effect the input of data retrieved from the Internet of Things has on the success factors of the New Product Development process, the following question will be addressed:

- **How does the input of data retrieved from the Internet of Things affect success factors of the New Product Development process?**

This research question will be answered with the help of a set of sub-questions. These sub questions

are derived from the success factors mentioned in the previous section. They allow for a structured and detailed answer on the main question:

- *Does the input of data retrieved from the Internet of Things in the New Product Development process help maximize the fit with customer requirements?*
- *Does the input of data retrieved from the Internet of Things in the New Product Development process help minimize the development cycle time?*
- *Does the input of data retrieved from the Internet of Things in the New Product Development process help control development costs?*

1.2 Academic Relevance

Although many New Product Development theories appeared over the years, none of them related them to the rapidly growing digitization of the external environment of businesses. With the Internet of Things as the upcoming and possibly disrupting internet development, it is valuable to study how the availability of large amounts of data retrieved from the Internet of Things influence the success factors of the New Product Development process. Certainly, given that this data can provide environmental and contextual insight of products to businesses.

1.3 Business Relevance

Businesses continuously need to keep up-to-date with the latest technologies in order to stay competitive. The Internet of Things looms as a game-changing technology for many industries. However, without any specific research done, businesses cannot be sure how the Internet of Things affects the key success factors of their New Product Development process. This research will offer businesses an overview of the effects on these success factors. With this overview, businesses can prepare for the Internet of Things, knowing which success factors of the process will either benefit or be challenged by the Internet of Things. Whether it be customer insight, cycle time or cost control.

1.4 Method

This research will start off by providing a basic understanding of the Internet of Things in chapter 2. Chapter 3 will provide an understanding of the New Product Development process. The general process is explained alongside with a deeper insight in to the success factors. Chapter 4 consists of a literature study, an expert study and an interview with, a business consultant for the IT Production department at PostNL. Articles in the literature study originate mostly from consultancy firms and

research departments from businesses and non profit organizations. This is due to the fact that the concept of the Internet of Things has only recently grown in popularity, despite the fact that it has been a concept since the 80's. The literature study will point out the similarities and discrepancies between the positions of the articles on the sub-questions.

The expert study will consist of directors and managers of businesses that involve Internet of Things in their processes or offer Internet of Things solutions, professors that are involved in the Internet of Things and researchers that study the field of Internet of Things and Business. They will be asked to give their opinion and foresights on the effects of Internet of Things on the New Product Development process, based on their expertise and experience. Three questions are created that are based on the three success factors of the New Product Development process:

- *What effect do you expect the Internet of Things to have on the ability to match customer needs in the New Product Development process?*
- *What effect do you expect the Internet of Things to have on the speed of the New Product Development process?*
- *What effect do you expect the Internet of Things to have on the costs of the New Product Development process?*

Lastly, the interview was held in an informal format. The questions presented above were used as guiding questions, alongside the question of how PostNL is currently implementing the Internet of Things for product development. This interview will function as a complementary insight to the expert study.

Once all results are discussed, they will be summarized in Chapter 5 and a conclusion will be made by identifying trends and discrepancies. Chapter 6 will first describe the limitations of this research and then elaborate on the research gaps in the found results. Suggestions for subjects for future research will be given alongside with suggestions for better research design.

2. INTERNET OF THINGS

The 'Internet of Things' is the agglomeration of physical objects that have a variety of sensors and are (inter-)connected through an internet protocol. Such a 'smart product' is characterized by seamless ubiquitous sensing, data analytics and information representation with cloud computing as the unifying framework. (Gubbi & Buya, 2013) Porter &

Heppelmann (2014) state that it is the combination of physical components (hardware), smart components (sensors, software and data analytics) and connectivity (wired or wireless connection) that allows for continuous value improvement. The smart components enhance the capabilities of the physical product, whilst the connectivity components enhance the capability of the smart components. Connectivity gives smart product both the ability to exchange information between the product and its environment (whether that is its user, the manufacturer or other smart products) and the ability to offer functions that exist outside the physical device. Such functions exist in the product 'cloud'. (Porter & Heppelmann, 2014)

An example is the increasingly popular idea of a 'smart watch'. Such a watch exists of the physical components of a traditional (digital) watch, but has built in sensors that can, for example, measure each movement that you make with the help of an accelerometer¹. The data created by this sensor can be stored in the cloud through an internet connection. With the help of data analytics, the amount of movements can be translated in to the amount of exercise. The user can now check their amount of exercise in a day on their phone, tablet, computer or other devices with access to the smart watch 'cloud' through the internet. Users that are on an exercise schedule for example can now check if they have reached their exercise goals. It can even be taken one step further by letting the smart watch 'cloud' provide dietary suggestions based on the amount of exercise someone has had that day. Note that this integrated service would not have been possible without the smart components or connectivity components in the smart watch.

2.1 Big Data

Smart products retrieve large amounts of data through their sensory abilities and add this data to the digital environment through their connectivity. It is expected that by 2020 the Internet of Things will account for 10% of all digital content, which is estimated to be a total of 44 zettabytes (44 trillion gigabytes) by that time (Turner et al., 2014).

The data that the Internet of Things produces contributes to so called 'Big Data'. Big Data is defined by data that is created in high volumes at a high velocity (real-time or nearly real-time) and in a variety of forms (e.g., text, images, sensor data). (McAfee, A. et. al, 2012) As Bauer, Patel & Veira (2014) reported, it is estimated that up to 30 billion products will be labeled as 'smart' by the end of 2020. This large amount of products will evidently create high volumes of data that will come

in a diversity of forms (text, video, image, sound , etc.). Diwanji & Verma (2015) state that typical data retrieved from smart, connected objects contains information on the product's design, usage, operating environment, maintenance history, customer preferences and resource consumption. Lastly, due to the connectivity of smart products, this data will generally be retrieved, stored and shared in real-time. With these characteristics it is safe to say, that the Internet of Things will contribute to the Big Data trend.

¹ An accelerometer is a sensor that measures changes in acceleration forces. By registering these changes, the sensor can

Many businesses have discovered the value of Big Data. Within the large amount of unstructured data lie valuable insights that can help businesses increase their competitiveness. (Manyika, 2011) One main condition however, is that businesses need to be able to handle such data. This is done through data analytics. Platforms like 'Hadoop' make it possible to aggregate and summarize data and visualize trends. It is up to the business to transform these trends into insights, and insights into action. In the end, value can only be created through concrete action. Rajpathak & Narsingpurka (2013) state: "The challenge for Big Data analysts is to develop techniques and algorithms that are intelligent enough to read and analyze this data to extract right information to aid in the product development process."

2.2 Scope

The data that can be retrieved from smart products will henceforth be called *smart product data*. Note that this smart product data can be sourced from products used by consumers as well as e.g. manufacturing equipment used during the New Product Development process. This means that data can be created inside and outside of the New Product Development process. This research will assume that smart product data is retrieved from external sources. That is, from smart products that are already in use by consumers. In case smart product data comes from an internal source (data retrieved during the process), this will be specified in the text.

3. NEW PRODUCT DEVELOPMENT

The New Product Development process is a vehicle of (product and service) innovation within businesses. Innovation in this context is defined as 'the process of making changes to something established by introducing something new that adds

value for the customer.' (O'Sullivan & Dooley, 2009) The New Product Development process is defined as the firm's complete process of bringing a new product or service (hereafter referred to as 'product') to market. This can involve a physical product, but also a digital product (e.g. software and websites) or even an interactive product (e.g. services).

It is important to note here, that a new product can be interpreted in different ways. Booz, Allen & Hamilton (1982) have defined six types of interpretations of what a 'new product' can entail:

- New-to-the-world products
- New-to-the-firm products or new product lines.
- Additions to existing product lines.
- Improvements and revisions to existing products.
- Repositioning of an existing product (line).
- Cost reductions through design or process innovation.

The list proposed above can be interpreted as a continuum of radical innovations to incremental innovations (from top to bottom). Crawford (2008) states that the success of a new product is largely based on the value that is added to the customer. He adds that about 60% of newly developed products (over all categories) will be met with success (that is, with at least a break-even of costs and profits). In addition, Crawford states that the failure rate for new to the sense if it is being tilted or moved with respect to a certain position. (Goodrich, 2013) world products is naturally higher due to high levels of uncertainty throughout the development process. However, this product category does often reap higher profits than other categories if successful.

The New Product Development process is not set in stone. Many models have been created that vary in stages and terminology. Murthy et al. (2008) states that these variances can be explained by their context, such as the type, innovativeness and complexity of the products in question. However, the stages and interpretations of the terminology are often very similar. The BAH model created by Booz, Allen and Hamilton (1982) (hence the abbreviation 'BAH') and the stage-gate model created by Cooper (1990) will be used to illustrate this similarity. These two models are widely accepted in the New Product Development field.

The 7-step BAH model functions as the base of many later models (figure 1, larger version in Appendix A.).

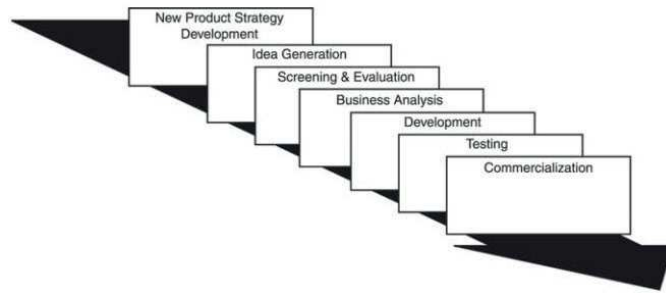


Figure 1. BAH model , source: Booz, Allen & Hamilton Inc. (1982)

The BAH model exists of seven stages, starting with *new product strategy development* followed by *idea generation*, *(idea) screening and evaluation*, *business analysis*, *development*, *testing* and *commercialization*.

In addition, Cooper’s stage-gate model is seen as a major contribution in the New Product Development field (figure 2, larger version in Appendix B.).

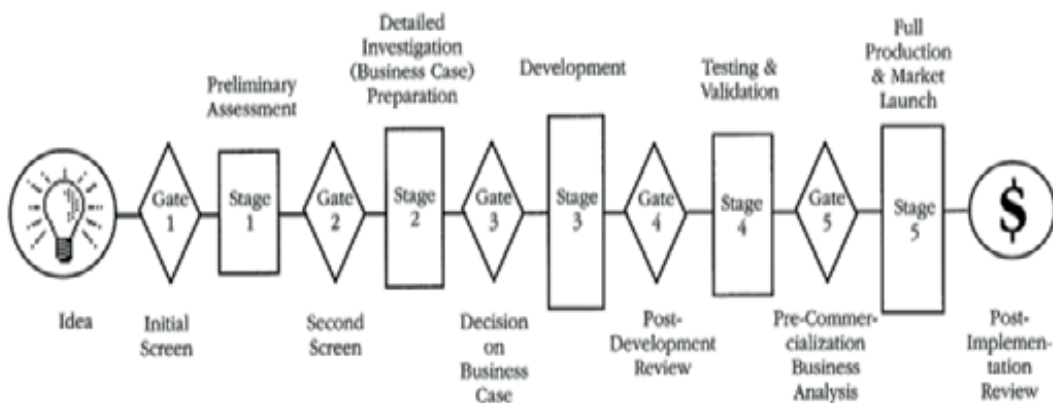


Figure 2. Stage-Gate model, source: Cooper (1990)

This model exists of five stages that are in their content very similar to the stages of the BAH model. Given that the process starts off with a new idea, the stages are: *preliminary assessment*, *business case*, *development*, *testing and validation* and *full production and launch*. (Cooper, 1990) The added value in Cooper’s model consist of the so called ‘gates’ between each stage. A gate functions as a go/no go decision after a certain stage. These decisions are based on predetermined deliverables and their criteria. These gates ensure that there are regular evaluative moments within the process that reduce uncertainty and risk in each consecutive stage.

Traditionally, the first stages (up until *business analysis* or *business case*) are less formal than their consecutive stages. This makes the front end of the New Product Development process typically chaotic, unstructured and unpredictable. The ideation phase is therefore often called the *fuzzy front end* of the New Product Development process. (Koen et. al., 2002)

Once uncertainty is reduced enough to create a clear project outline, the product will be developed through prototyping, testing and validation activities, until a product design is reached that is ready for launch. The last stages (*commercialization* and *full production and launch*) include all production, marketing, sales and distribution activities that are needed to bring the product to the customer.

3.1 Success factors

The speed, efficiency and effect of the new product process are believed to largely determine a firm’s success

(Schilling, 2013). Schilling translates this to three key success factors for the process: (1) maximized fit with customer requirements, (2) minimized development cycle time and (3) controlled development costs.

A new product or service will naturally be more successful if customer requirements and customer needs are met, even if these are not always known by the customer himself. Schilling (2013) identified several pitfalls for firms in trying to figure out these requirements and needs. Firstly, customer requirements and needs are not always known to the firm. In addition, firms might not always have a clear image of which of the known requirements are most valued by the customer. This can result in products that do not meet requirements enough or at all. Another pitfall is the overestimation of the customer willingness to pay for a certain feature, resulting in over-priced products. Lastly, firms can struggle with the difference of requirements by different customer groups. Firms must be cautious not to carelessly compromise between certain features when trying to meet the demand of both groups, as it might result in a product that does not appeal to either of those groups.

The second objective revolves around the speed with which a product is launched on the market. Early market entry could give a firm various advantages, such as building brand loyalty, gaining access to scarce resources and building customer switching costs. Short development cycle times also allows firms to quickly update and upgrade their products if needed. (Schilling, 2013)

However, firms must take care to only launch products that are validated. Bringing underdeveloped, or maldeveloped products to market just to be an early entrant could have a backlash on brand reputation and customer loyalty. (Dhebar, 1996) It also depends on the type of product if speeding to market is of high priority. Krubasik (1988) argues that products with high opportunity costs and low development risks should have a higher priority to decrease cycle time, but products with low opportunity costs and high development risks should prioritize making sure that the product is fully validated before launch.

As for controlling costs, development costs can run high if firms solely focus on quality and speed. Given that the development process involves a certain opportunity risk, firms must strive to keep costs in control. The development process costs must be recoupable, even if the product is well received by the market. (Schilling, 2013)

Crawford (2008) states that in a typical New Product Development process, costs increase with each consecutive stage. Costs and time (per activity) are typically lowest at the beginning of the process. Crawford points out that it is therefore the goal to decrease uncertainty with each stage, so that investments in the next stage are well-grounded and less risky. Investments (of finances and resources) increase as the process proceeds. As for the objective to match customer requirements, customer requirements are generally used as a major input at the beginning of the process, during the ideation stage.

3.2 Scope

The types of product innovations mentioned by Booz, Allen & Hamilton (1982) vary in their novelty. This links with the continuum of radical innovation to incremental innovation. Radical innovation is known to be hard to manage, due to the large amounts of uncertainty (Crawford, 2008). Given that the process around radical innovation is not fully understood yet, this research will focus on incremental product innovations. Although it is a continuum, the following types of product innovations are considered here to be incremental enough to be sufficiently managed with the New Product Development process described in the previous section, and seem to present the most likely opportunities in combination with the Internet of Things :

- additions to existing product lines
- improvements and revisions to existing products
- repositioning of an existing product (line)
- cost reductions through design or process innovation.

Also, for the sake of this research the New Product Development process will be assumed in an abstracted form (figure 3). This is done because it makes it easier to refer to an estimated phase of the New Product Development process or illustrate changes in the process without implying specific effects to a certain stage². After all, this research will study the effect of smart product data on the success factors of the process, and not its specific stages. The abstracted form will therefore safeguard this research from making statements about any specific effects on a model that may not be validated through this research.

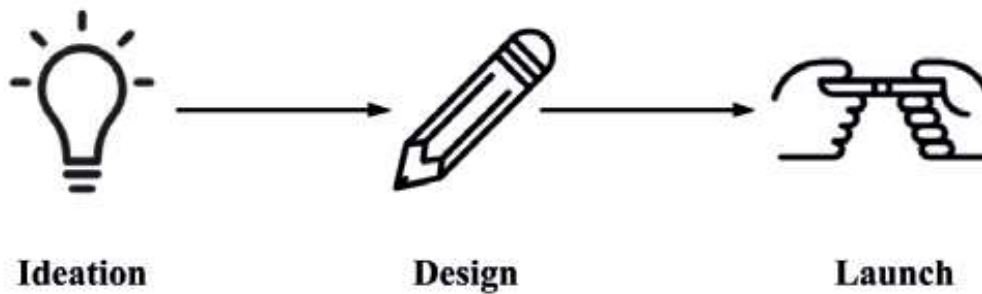


Figure 3. Abstracted version of the New Product Development process.

In the abstracted form, the New Product Development process is reduced to three stages: ideation, design and launch. Looking back at the two models explained at the beginning of this chapter, each of their stages can be fit in to one of the three phases of the abstracted model. The ideation phase includes the following stages of the BAH model: *idea generation*, *idea screening* and *business analysis*. The stages from the stage gate model that belong to the ideation phase are: *discovery*, *scoping* and *business case*.

The design phase encompasses the *development* and *testing* stages of the BAH model, and the *development*, *testing* and *validation* stages of the stage-gate model.

Lastly, the launch phase includes the *commercialization* stage of the BAH model, and the *full production and launch* stage of the stage-gate model.

4. SMART PRODUCT DATA IN THE NEW PRODUCT DEVELOPMENT PROCESS

This chapter will discuss what effect smart product data will have on the three success factors of the process, according to literature and experts (under which the interviewee).

4.1 Maximizing the fit with customer requirements

It is not hard to imagine how the availability of smart product data can attribute to a better understanding of the customer. Diwanji & Verma (2015) state that “by using data and analytics, companies can now see and predict a product’s behavior and, by extension, the wants and needs of its user by interpreting the data and anticipating how a product could solve current and future needs.”

The following sections discuss these opportunities in more detail as well some expected challenges by means of four sub-categories: iteration, micro segmentation, continuous product improvement and increased complexity.

4.1.1 Iteration

Various pieces of literature discussed the opportunity to use smart product data in the iteration loop from launch to ideation. This means that smart product data from already launched products, or past development processes can be used to improve the quality of future development processes and their subsequent products. This process is illustrated in figure 4.

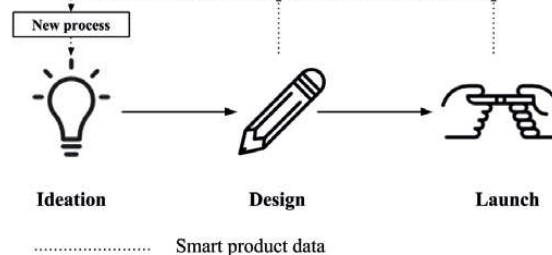


Figure 4. Iteration loop of smart product data

Rajpathak & Narsingpurkar (2013) state that today’s top manufacturers use data from warranty claims, quality testing and diagnosis as feedback to New Product Development processes. They analyze and identify correlations from this data to eventually develop better products. The most modern sources of information include customer feedback on social media and sensor data. (Note that sensor data is a large part of smart product data)

² Note the subtle difference between the interpretation of the words ‘stage’ and ‘phase’. Stages assume clear transitions in between them, whereas phases assume more gradual transitions.

According to Rajpathak & Narsingpurkar, organizations that have embedded IT and Big Data analytics are using this information to improve product design, product quality, cost reduction and customer satisfaction through data-driven decision making and processes. They give the example of a telecom equipment manufacturer that increased its gross margin with 30% in 2 years by eliminating costly features that weren't of value to the customer and by adding features that were of a greater relevance to the customer, and for which the customer was willing to pay a higher price. By using enriched data (i.e., sensor data) as a feedback input in to each New Product Development process, this manufacturer increased the fit with customer requirements by offering more relevant products and better understanding their willingness to pay.

Diwanji & Verma (2015) exemplify the use of smart product data in pharmaceutical companies. According to them, many pharmaceutical companies are already trying to optimize manufacturing processes for new products by using data from various phases from previous processes in new processes. By doing so, they can identify success formulas or 'golden recipes' that have proven to 'work' before. This supports the notion of Rajpathak & Narsingpurkar that integrating data in the iteration loop can help businesses create a better fit with customer requirements.

4.1.2 Continuous product improvement

Continuous product improvement seems very similar to the iteration loop as discussed in the previous section. However, in this case, continuous improvement is interpreted as increasing the value of an existing product during its own lifecycle, instead of improving future products. This process is illustrated in figure 5.

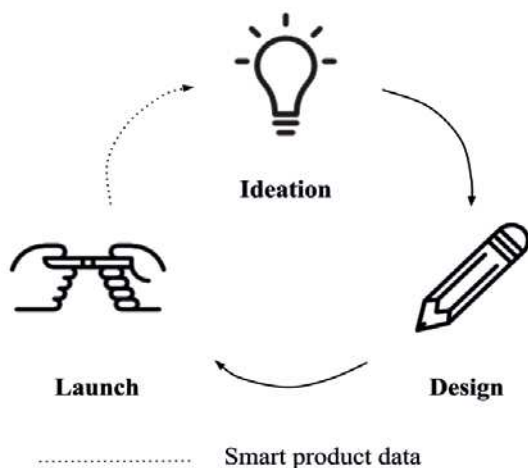


Figure 5. Continuous product improvement

Manyika (2014) argues that smart product data can allow products to become better while in service. Instead of depreciating in value, products can now grow in value during their own life cycles. IBM Analytics (2014) supports this notice. They state that smart products can receive remote software updates based on analysis of smart product data. IBM Analytics adds that this data can help inform decisions about changes in design, performance, reliability or new features.

An example from practice is how Tesla sends regular updates to its cars, offering new features and improved performance to its customers. The model X and S cars for example, are now sharing data with Tesla in order to improve the autopilot feature. This feature was introduced in October 2015 through a software update and is expected to improve in the coming years with the help of the collected data from the cars itself. Users won't need to buy a new highend car, but simply have to update their soft- ware to enjoy this feature. (McHugh, 2015)

4.1.3 Micro segmentation

Another opportunity that is widely supported is that of micro- segmentation. Rajpathak & Narsingpurkar give an example of how smart product data could help identify the needs of specific customer groups. They discuss the field of automotive OEM's, in which there is talk about fitting vehicles with sensors that are able to track the performance of the vehicle and the driver. These sensors provide product development teams with

realtime performance and failure data and allow them to convert it into useful insights in the specific requirements of different segments. For example, driving behavior and road conditions differ across countries. By analyzing these differences a single car model can be tuned to fit multiple international markets. The opportunity to enable micro segmentation is supported by Porter & Heppelmann (2014), Manyika (2015) and Davis (2015).

Porter & Heppelmann state that smart products have the characteristic to be able to be controlled by their software. This allows a high degree of product customization that wouldn't have been possible without their smart components and connectivity. They give the example of the Philips Lighting Hue lightbulbs: with the help of a smartphone customers are able to program them to react to a certain change in the environment. For example, they can program the lightbulb to blink red if it detects an intruder, or it could automatically dim the lights at 10 pm. Porter & Heppelmann argue that analyzing such data can help firms segment markets in more sophisticated ways and offer products that are tailored to these segments. Even more close to the customer, Porter & Heppelmann argue that this kind of customization possibilities make it possible to customize products for individual customers, enabling the ultimate match with customer requirements.

Manyika et al (2014) also states that a continuous, detailed stream of real-time data enables both micro segmentation and insights into consumer willingness to pay. Davis (2015) supports this by stating that this kind of usage data can influence strategic moves into connected markets, as customer segments and new product uses can be identified. He adds "the product development process will improve as data starts to flow into and around the business. The R&D, production, marketing and customer service functions gain new insight into how customers use (and want to use) products, as well as the interactions between sets of products and processes."

4.1.4 Increased complexity

The previous sections have shown the three key opportunities that smart product data can provide to maximize the fit with customer requirements. However, IBM Analytics (2014) warns that especially when product systems and 'systems of systems' are involved, the complexity of smart product data increases drastically. Linking back to the characteristics of Big Data : more complexity would come in the form of higher volumes of data, in even more miscellaneous formats in real-time. As has been discussed before, Big Data requires a fair amount of analytics in order to gain insights. An increase in complexity would put a strain on this

challenge, especially if a business is not familiar with handling Big Data. An accompanying challenge lies in the fact that so called 'systems' and especially 'systems of systems' can exist of smart products that originate from various manufacturers. Apart from the challenge of managing the bulk of data coming from these systems, businesses would have to decide on the ownership of this data. Data from other manufacturers or other third-parties can only be accessed by working together and sharing data and insights. By doing so, businesses can get the full potential out of the data. Interestingly, Davis (2015) states that one of his findings in a survey was that 32% of business leaders³ are open to share data, collaborate and coinvest. Davis underpins the value that lies in sharing and co-investing : "If product data is combined with input from a third party supplier or a third party data feed, then the ability to personalize a product dramatically increases."

Porter & Heppelmann (2014) see the danger of increased complexity in another perspective. According to them, the functionality of products will increasingly move to a digital interfaces, as was the case with Philips Lighting Hue light bulbs which are controlled through a smartphone. They expect that the more smart products evolve, the more human machine interactions will move to such a digital interface. Porter & Heppelmann argue that the complexity of the user-interfaces within those environments will increase with it, having the danger to be too complex for consumers to enjoy and backlash on the customer experience.

4.2 Minimizing cycle time and controlling development costs

The effects of introducing smart product data, are often interconnected. Cost and cycle time are both factors that relate directly to the efficiency of the process. The literature shows that one key way to lower costs is to make faster decisions and move faster throughout the cycle, without too much trial and error. This interconnectivity becomes clear in section 4.2.1 (*Design efficiency*). The sections that follow relate separately to cost control (section 4.2.2.) and cycle time (section 4.2.3).

4.2.1 Design efficiency

As mentioned in section 4.1.4 (*Increased complexity*) the complexity of product development is expected to increase with the Internet of Things involved. However, Rajpathak & Narsingpurkar (2013), Diwanji & Verma (2015) and IBM Analytics (2014) argue that at the same time, complexity could actually be decreased with the help of smart product data.

Tushar Rajpathak and Atul Narsingpurkar from TATA Consultancies created a white paper about Big Data management in the product development process. As has been argued in Chapter 2, smart product data accounts for Big Data because of its velocity, variety and volume. Rajpathak & Narsingpurkar argue that the right interpretation of Big Data can help reduce costs and cycle time during the New Product Development process: “linking useful knowledge obtained through Big Data analysis with rules, logics etc. can help faster and right-first-time decision making, contain cost, improve reusability and reduce product development cycle time.”

They exemplify the situation in which product data can be used to see how a specific component was designed in the past and what challenges were encountered. Rajpathak & Narsingpurkar state that organizations that utilize this information find that “they not only help in the design of new parts and assemblies, but can also promote standardization by harvesting old parts from existing databases.” In this example, Rajpathak & Narsingpurkar talk about the use of product information obtained within the product development process itself. Diwanji & Verma (2015) argue the same in their report ‘*Connected products for the industrial world*’. They argue that data generated during the product development process allows businesses to detect failure patterns of components at an early stage.

Again, the ability to predict component or product performance

³ N= 205 (R&D, product design and innovation executives and CEO’S from healthcare, retail and manufacturing sectors and involved with developing smart products.) (and failure) with smart product data is argued to be valuable for future product design.

However, IBM Analytics (2014) argues that design efficiency can be reached with smart product data retrieved from launched products instead data retrieved in the process itself. IBM Analytics proposes the reuse of product design information across all different products to reduce overall complexity in the product portfolio. This ‘product design information’ refers to data obtained from products that are already used by the market. It contains the realtime performance data of product components and features. If successful product components and features can be standardized, overall complexity within the organization can be kept in line.

This, again, relates directly to the estimated increased complexity discussed in section 4.1.4.

By reusing design elements across the product portfolio, the challenge of complexity could be kept in line.

4.2.2 Costs

Porter & Heppelmann (2014) have a more critical outlook on the effect on cost control during the New Product Development process. They argue that the cost structure of smart products will entail higher fixed costs and lower variable costs. The higher fixed costs are said to be due to the costs of software development, more complex product design and the investment in connectivity, data storage, analytics and security mechanisms. However, it must be noted that this argument partially rests on the assumption that the product in question *is* a smart product. It does not imply that the use of smart product *data* increases fixed costs. But the mention of the costs associated with analytics and software development are still relevant in New Product Development processes that use smart product data as an input. Therefore, it should still be considered in this context.

Contrarily, Davis (2015) expects financial risk to decrease because of the increased collaboration between businesses (this expectation is also mentioned in section 4.1.4, *increased complexity*). He states: “Products become intertwined as companies combine product data and co-invest in smart product development. New corporate structures emerge to reduce the risks of working collaboratively, and partnership models evolve to reduce development costs, access external capacity, and share risk and reward.”

4.2.3 Clock time for hardware vs. software

Porter & Heppelmann (2014) also point out that product development processes will need to be able to accommodate late stage and post-purchase design changes quickly and efficiently. Hardware and software development can have very different ‘clock speeds’, but can both deliver new value. Software development might have had up to 10 iteration loops in the time it takes to develop one new version of hardware. This point is interesting, as it emphasizes that the possible improvement of the success factor ‘cycle time’ also depends on the type of product in question. Given that software will be the main deliverer of value in an Internet of Things context, as opposed to hardware (recall section 4.1.2, *continuous product development*), one could conclude that the product development cycle time will decrease greatly when software is involved. However, it is important to note that the right ‘time to market’ is relative to competition. While

software development may be less time consuming, businesses will have to make sure they get to market in the right time, compared to their competitors.

4.3 Empirical results

4.3.1 Expert study

The expert study attracted five respondents (*anonymized but some details are in Appendix C*). All five respondents agreed that smart product data could help businesses maximize the fit with customer requirements during product development. A senior researcher at the Rijksuniversiteit Groningen, argues that product use can be finely followed by the producer or service provider, allowing them to offer them what the customer wants at any moment in time. A business developer, mentions something similar to section 4.1.1 (*iteration*). He states that gathered information on user behavior can be used for next generation solutions.

The expectations of the effects on cost control of the New Product Development process were divided. Three out of four respondents expected costs to increase. A CTO interviewed states that because the Internet of Things is an additional channel it will require an additional budget. The business developer states that the development of smart products will be more expensive because of the need for new technologies and product elements. However, the latter argument seems to be based on the development of smart products, rather than the use of smart product data in a development process. Therefore it says nothing about the effect of smart product data on the cost control during the New Product Development process. In contrast, the interviewed Managing Director of the Internet of Things security foundation, argues that smart product data makes it possible to 'field-test' certain product attributes before fully committing to new product variants. This implies that this can decrease uncertainty and consequently decrease financial risk.

As for the effect of smart product data on the cycle time, the business developer argues that the increase of complexity could slow the process down. Contrarily, the managing director (IoT security Foundation) argues that smart product data could actually increase the number and speed of product introductions to the market (similarly to Porter & Heppelmann argument in section 4.2.3, *Clock time for hardware vs. software*) the interviewed CTO argues that if innovative and mature platforms for the Internet of Things are used, the cycle time could be decreased.

The latter argument seems to make the argument of the business developer redundant, as happened

earlier when increased complexity was argued to be minimized with the use of efficient design and sophisticated data analytic capabilities.

4.3.2 Interview

In the interview with the business consultant for the IT Production department at PostNL, the integration of the Internet of Things within PostNL was discussed. One of the main findings was that PostNL, as a service and logistics company, has a slightly different take on the expected value of the Internet of Things than manufacturing companies.

PostNL uses smart product data to identify and support strategic moves, such as new market opportunities or even completely new product categories. PostNL clarifies that the volume of letters is decreasing, and the volume of packages is increasing in the postal market. In addition, PostNL notices that the relation of businesses and customers is becoming more and more flexible and personalized. This too has implications for the postal market. Therefore, the interviewed business consultant mentions the importance of using smart product data to identify new revenue models. She adds that smart product data can help identify models that revolve around additional postal services, but also around nonpostal sectors. This means that PostNL is exploring sectors that lie outside its traditional product portfolio. The latter approach to using smart product data seems to lean more towards radical innovation than incremental innovation.

Interestingly, the interviewed business consultant states that by analyzing smart product data, new strategic questions arise.

This implies that smart product data may not only be a source of solutions and insight, but also a source of new relevant questions that have strategic value.

There was one application however, that links to 'maximizing the fit with customer requirements'. Similarly to the findings in section 4.1.2 (*continuous product improvement*), PostNL sees value in using smart product data for continuous improvement of existing services. The service for delivering mourning postage, for example, is a delicate one. By ensuring real-time localization (which can be realized with the help of sensors and connectivity to a central platform), the risk of a failed delivery can be reduced. Consequently, the risk of recovery costs can be reduced too. The latter lightly links to the success factor 'cost control'. It may not decrease the cost of the actual development of the service, but by reducing the risk of recovery cost, development costs are more likely to be recouped.

However, because PostNL mostly uses smart product data for strategic insight, cost control and cycle time of the New Product Development process are not necessarily a priority. It is hard to ensure cost control and cycle time in a structured way if the retrieved data is also used for radical innovation.

5. CONCLUSION

The articles, experts (under which the interviewee) were clear on what positive and negative effects the use of smart product data could have on the success factors of the New Product Development process. Table 1 shows which articles and experts argued that smart product data either improved or challenged each success factor of the New Product Development process. The positive effects of smart product data on the success factors depend on certain conditions, such as decent data analytic capabilities. Therefore positive effects (indicated with a '+') can be regarded as opportunities, and negative effects (indicated with a '-') as pitfalls. Any section with a '/' indicates that that article or expert did not address that particular success factor, or argued that it would remain unchanged. Opportunities can be exploited and pitfalls can be avoided by meeting certain conditions. These conditions will be specified in section 5.1.

Table 1. Summary of expected effects on success factors

Table 1. Summary of expected effects on success factors

Articles	Matching customer requirements	Cycle Time	Cost Control
<i>Davis (2015)</i>	+	/	+
<i>IBM Analytics (2015)</i>	+, -	+	+
<i>Porter & Heppelmann (2014)</i>	+, -	+	-
<i>Manyika (2015)</i>	+	/	/
<i>Diwanji & Verma (2015)</i>	+	+	+
<i>Rajpathak & Narsingpualar (2013)</i>	+	+	+
Expert Panel			
<i>CEO</i>	+	+	+
<i>Senior researcher at the Rijksuniversiteit Groningen</i>	+	/	-
<i>Business developer</i>	+	-	/
<i>CTO</i>	+	+	-
<i>Managing director at the IoT security foundation</i>	+	+	+
Interview PostNL			
<i>Post NL business consultant</i>	+	/	+

The articles and experts discussed an array of (mostly) positive effects that the use of smart product data can have on maximizing the fit with customer requirements. In fact, all twelve sources expressed positive expectations. Many opportunities recurred throughout the different sources. In short, it is expected that businesses that use smart product data will be able to :

- Use smart product data in the feedback loop between product launch and ideation to improve future New Product Development processes.
- Continuously improve products during their own life-cycle, and with that, continuously increase their value post-purchase.
- Identify market segments in detail, down to the individual level.

Two articles also expressed their concerns despite their positive expectations. The two pitfalls that put a strain on the ability to match customer requirements are:

- The inability to handle the new, complex stream of data.
- The inability to maintain user friendly interfaces across digital interfaces.

PostNL clarified in the interview, that the company mostly uses smart product data to gain customer, market and strategic insight as well.

It can be concluded that the articles are overall positive about the value that smart product data could add to maximizing the fit with customer requirements. This success factor seems to reap the largest positive effect from the use of smart product data. The opportunities mentioned above all relieve the traditional pitfalls that businesses encounter in trying to match customer requirements. (recall the traditional pitfalls discussed in section 3.2, *success factors*)

Firstly, smart product data allows organizations to capture realtime information about what features the customer uses and does not use. This will reduce the risk of the pitfall of offering undervalued features. Furthermore, this kind of data can predict the customer's willingness to pay. This can help avoid the mistake of overpricing or overestimating the importance of certain features. Lastly, smart product data allows businesses to understand the needs and wishes of particular customer groups, and even individual customers.

To reap these benefits, managing complexity is important to assure that decisions are based on rightly interpreted data.

Only eight out of twelve sources discussed the possible effect on the cycle time of the New Product Development process. The opportunity for increasing design efficiency is argued to decrease complexity and inherently, decrease the cycle time

of future New Product Development processes. In fact, seven out of eight sources that discussed this topic argued that cycle time will decrease with the help of smart product data. A challenge however, is to adapt to an increasingly competitive environment where relatively simple software updates with short cycle times can function as the 'new product'. The arguments stays, that businesses have to make sure to get to market on the 'right time' rather than as quickly as possible.

The articles and experts were a bit more divided about the effects on cost control. Seven out of ten sources that discussed development costs expected positive effects on cost control. This does not only entail the reduction of costs during the process itself, but also the reduction of financial risk throughout the process. After all, cost control is about making sure that development costs are recoupable. The example of PostNL showed that by reducing the risk of recovery costs, PostNL is able to improve cost control. Davis (2015) expects an increase in collaboration and shared risk, and therefore the increased ability to control costs. Three out of seven argued that costs would decrease if smart product data is to be used for improving design efficiency. However, Porter & Heppelmann (2014) argue that fixed costs of data analytics and software development will increase.

Table 2 shows a short overview of the answers to the sub questions of this research. Together they form the answer to the main research question: *'How does the use of data retrieved from the Internet of Things affect the success factors of the New Product Development process?'*

Table 2. Answers to sub questions

Will the input of smart data help...	Answer
<i>Maximize the fit with customer requirements?</i>	Yes, the literature study, expert study and interview all point out that smart product data can provide extensive customer insight.
<i>Minimize development cycle time?</i>	Most likely, most sources agreed that cycle time could decrease with the help of smart product data. It is expected by most that design efficiency and the focus on software will decrease cycle time.
<i>Control development costs?</i>	Unclear, both literature and experts were divided on this subject. The reduction of financial risk and increased design efficiency might ease cost control. But increased complexity and the expectation of higher fixed costs might challenge cost control.

5.1 Conditions

The literature study and expert study often pointed out arguments that seemed to counterbalance each other. It seems that the opportunities and pitfalls discussed in this research could be dealt with appropriately by ensuring a few key conditions.

A recurring theme throughout all articles was the importance of competencies related to data analytics. It has become clear that the amounts of data streaming in to a business will increase when smart products are involved. Knowing how to accumulate and visualize this data is a must to gain insights. The real value lies in knowing how to act on these insights. The greatest value seems to lie in developing more specific customer insights, allowing businesses to create greater value for their existing and future customers.

Another worry was that because of the new nature of products, complexity can grow drastically. The data coming in, as well as the design of the products may become more complex. At the same time, various articles argued that smart product data can reduce complexity. If design efficiency can be

implemented and cooperation with third parties can be fostered, complexity can be kept in line, and the pitfalls related to high complexity could be avoided all together.

6. DISCUSSION

This chapter will discuss the limitations of this research, followed by possible areas for future research topics based on the conclusions and other insights gained during the research. Also, suggestions for better research design will be given.

6.1 Research limitations

This research was subject to various limitations. These limitation are mostly related to the expert survey. Firstly, only 5 experts filled in the survey for the expert study. This makes that any conclusions subtracted from the expert study are merely an indication of the general opinion. In addition, the survey did not always elaborated on the answers given, making it hard to understand the reasoning behind their opinion or expectation. This can mean that some findings in this research lacked the rich foundation that they could have had with additional expert insights.

Lastly, some responses did not answer the subquestions. This could imply that some survey questions were not clear to the respondents and could have been designed better. Especially the question *'What effect do you expect the IoT to have on the costs of the new product development process?'* is misleading in hindsight. It could imply that the main objective is to reduce costs. Although this is one way to control costs, the focus must lie on making sure that costs are recoupable in the end. Blindly reducing costs can cause quality to diminish. The interview with PostNL provided valuable insights for this research, and allowed for follow-up questions if a certain answer was not clear. It is therefore advised to choose for more interviews in future research, instead of a survey. Especially when qualitative information is desired, an interview allows for richer insights.

Another limitation is connected to the fact that the growth of the Internet of Things is a recent development. Because of this, there is little academic research that discusses the subject in relation to the new product development process. The literature used in this research therefore mostly stems from consultancy firms or research departments from businesses.

6.2 Future research

The answers to the sub questions show that the effects of smart product data on cycle time and

cost control are not completely clear. Especially as regards the cost control of the process. Future research could be done to identify why there is such a discrepancy in expectations on this subject.

Furthermore, the results from the interview with PostNL implied that service companies might have other opportunities and challenges when using smart product data as opposed to manufacturing companies. It could be further researched whether there is actually a difference between service and manufacturing companies.

In addition, the interview clarified that PostNL also uses smart product data for radical innovation (i.e., new-to-the world products and new to the company products). This implies that smart product data can be of aid for radical innovation as well. It could be researched to what extent smart product data can aid businesses to develop more radical innovations.

Lastly, as mentioned in the section above, it should be considered to make use of more interviews instead of a survey in future research, if qualitative data is desired.

7. REFERENCES

1. Bauer, H., Patel, M., Veira, J. (2014) *The internet of Things sizing up the opportunity*, Retrieved June 10, 2016, from <http://www.mckinsey.com/industries/hightech/our-insights/the-internet-of-things-sizing-up-the-opportunity>
2. Booz, Allen & Hamilton Inc. (1982) *New Product Management for the 1980s*, New York: Booz, Allen & Hamilton Inc
3. Cooper, R. G. (1990). *Stage-gate systems: a new tool for managing new products*. Business horizons, 33(3)
4. Crawford, C. M., & Di Benedetto, C. A. (2008). *New products management*. Tata McGraw-Hill Education
5. Davis, E. (2015) *The Rise of the Smart Product Economy*. Cognizant, Retrieved April 11, 2016, from <https://www.cognizant.com/InsightsWhitepapers/the-rise-of-the-smart-product-economy-codex1249.pdf>
6. Diwanji V., Verna N. (2015) *Connected Products for the Industrial World*. Cognizant, Retrieved May 10, 2016, from <https://www.cognizant.com/InsightsWhitepapers/connected-products-for-the-industrial-world-codex1526.pdf>
7. Krubasik E. G. (1988) *Customize Your Product Development*, Harvard Business Review, 66, November–December, pp. 46–52. Retrieved June 11, 2016, from <https://hbr.org/1988/11/customize-your-product-development>
8. Goodrich, R. (2013, October 1). *Accelerometers: What They Are & How They Work*. Retrieved June 21, 2016, from <http://www.livescience.com/40102-accelerometers.html>
9. Gubbi, Buya & Marusic (2013) *A vision, architectural elements, and future directions*
10. IBM Analytics (2015) *The impact of the Internet of Things on product development: Discover how to transform your engineering processes and tools to gain a competitive advantage from the Internet of Things*. Retrieved April 29, 2016, from <http://www-01.ibm.com/common/ssi/cgi-bin/ssi-alias?htmlfid=RAW14384USEN>
11. Koen, P.A., Ajamian, G.A., Boyce, S., Clamen, A., Fisher, E., Fountoulakis, S., Johnson, A., Puri, P., Seibert, R. (2002) *Fuzzy Front End: Effective Methods, Tools, and Techniques in P. Belliveau, A. Griffin, and S. M. Somermeyer, The PDMA Tool book for New Product Development*, New York, John Wiley, Ch. 1.
12. Manyika, J., Chui, M., Bisson, P., Woetzel, J., Dobbs, R., Bughin, J. & Aharon, D. (2015) *The internet of things: Mapping the value beyond the hype*, McKinsey, p.110-114, Retrieved June 7, 2016, from https://www.mckinsey.de/files/unlocking_the_potential_of_the_internet_of_things_full_report.pdf
13. Manyika, J., Chui, M., Brown, B., Bughin, J., Dobbs, R., Roxburgh, C., Byers, A.H., (2011) *Big data: The next frontier for innovation, competition, and productivity*, McKinsey Global Institute, Retrieved June 5, 2016, <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/big-data-the-next-frontier-for-innovation>
14. McAfee, A., Brynjolfsson, E., Davenport, T. H., Patil, D. J., & Barton, D. (2012). *Big data: The management revolution*. *Harvard Business Review*, 90(10), 61-67. Retrieved April 20, 2016, <https://hbr.org/2012/10/big-data-the-management-revolution>
15. McHugh, M. (2015, October 14).

Tesla's Cars Now Drive Themselves, Kinda.

Retrieved June 21, 2016, from <http://www.wired.com/2015/10/tesla-self-driving-over-air-update-live/>

16. Murthy, D. P., Rausand, M., & Østerås, T. (2008). *Product reliability: specification and performance*. Springer Science & Business Media.

17. O'Sullivan, D., & Dooley, L. (2008). *Applying innovation*. Sage publications. pp. 4.

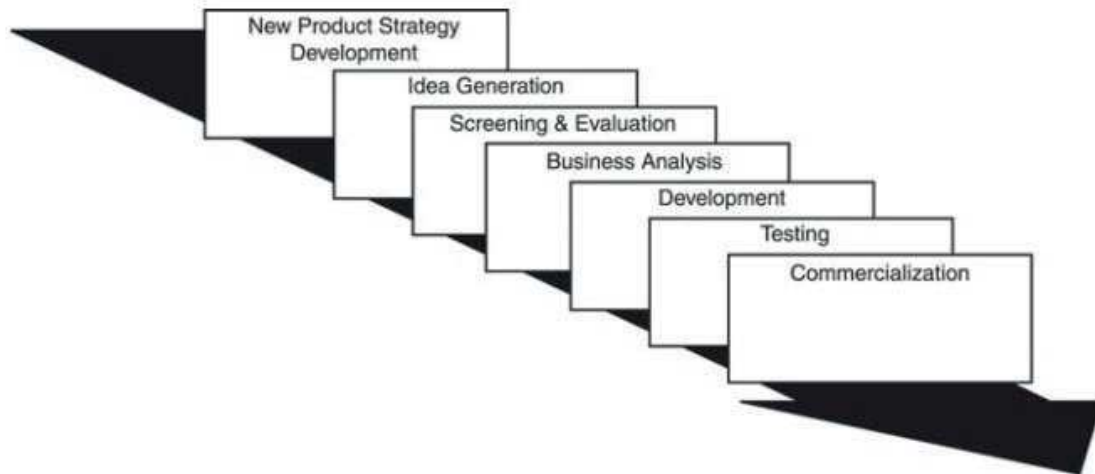
18. Porter, M.E., Heppelmann, J.E. (2014). *How smart connected products are transforming competition*. Harvard Business Review, 1, November, Retrieved April 11, 2016, from <https://hbr.org/2014/11/how-smart-connected-products-are-transforming-competition>

19. Rajpathak T. & Narsingpurka, A.(2013) *Managing knowledge from big data analytics in product development*. TATA Consultancy Services, Retrieved June 7, 2016, <http://www.tcs.com/SiteCollectionDocuments/White%20Papers/Knowledge-Big-Data-Analytics-Product-Development-1213-1.pdf>

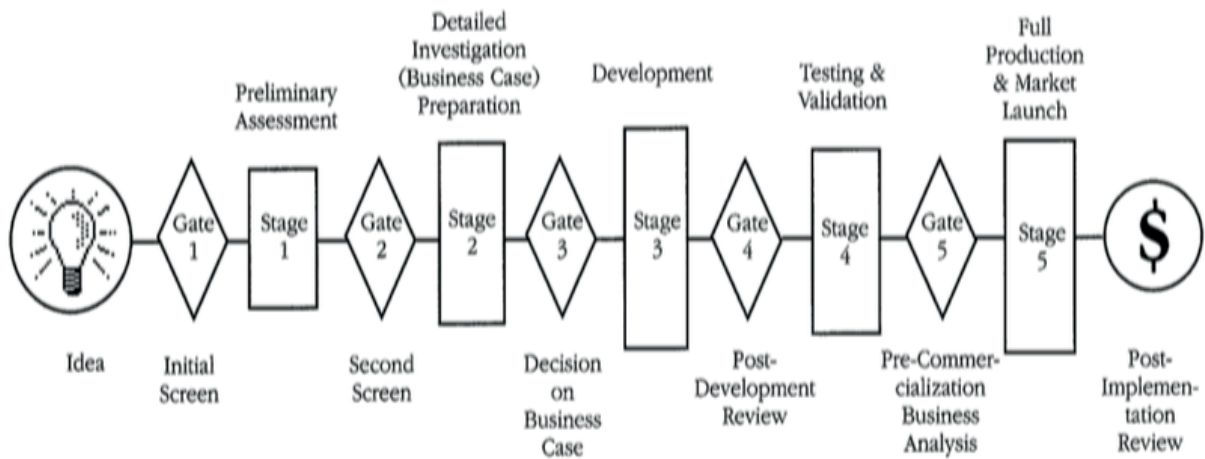
20. Schilling, M. A. (2013) *Managing the New Product Development process*. In *Strategic management of technological innovation*. (4th Ed.), London, McGraw-Hill Education Europe

21. Turner, V., Gantz, J.F. , Reinsel, D., Minton, S. (2014) *The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things*, International Data Corporation, Retrieved April 22, 2016, from <https://www.emc.com/collateral/analyst-reports/idc-digital-universe-2014.pdf>

8.APPENDIX



A. BAH Model
 source: Booz, Allen & Hamilton Inc. (1982)



B. Stage-Gate model
 source: Cooper (1990)

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C. Expert panel responses

	Company/Organization	Position	"What effect do you expect the Internet of Things to have on the ability to match customer needs in the New Product Development process?"	"What effect do you expect the Internet of Things to have on the speed of the New Product Development process?"	"What effect do you expect the Internet of Things to have on the costs of the New Product Development process?"
A		CEO	Much more seamless integration of offline with online.	Faster.	Lower.
B		Senior researcher	A huge effect. Use and optimization can be finely followed by the producer / service provider, allowing them to offer just what the customer wants at any moment in time.	No change.	Increase.
C		Business Developer	gathering information on user behavior using as insight for next gen solutions	risk is that it slows down because of increased complexity	Internet of Things is very multidisciplinary, new element/technology is involved so compared to just physical products development costs increase
D		COO/CTO, end responsible for HR and responsible for sales & marketing for a part in our integration/API proposition that uses innovative tooling	Internet of Things will play a very important role in the entire customer journey as the customer will also interact through devices with the product.	It can run in parallel to other initiatives so it doesn't need to slow it down, but can be kept on the same speed or maybe faster by using innovative, but mature tooling and platforms for Internet of Things	Internet of Things as additional channel will require additional budget, but the outcome will be a better product and customer experience of the product
E		Managing Director	It will be easier to identify early adopters or early majority adopters hence targeting should be more effective	It could have the effect of increasing the number and speed of new product introductions (and retirement of older products) - i.e. product churn	It may be possible to field trial certain product attributes before committing to new product variants

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