

Exploring Role and Characteristics of Clients in Promoting (or Hindering) Advertising Agencies' Multidimensional Innovation

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Abstract

Service literature has recognized the important role of customers' characteristics for successful innovation and is increasingly emphasizing the contribution of lead users. However, few studies have analyzed this issue with reference to advertising and other creative services, especially because of the difficulties in defining innovation in these industries, by capturing its complex nature. Through a large-scale survey on European advertising agencies, we provide empirical evidence of a multidimensional nature of innovation in these services, which can be better promoted by clients embodying some attributes rather than others. Indeed, our results identify three clusters, which differ for the clients' innovation enabling characteristics and their potential roles in promoting agency's innovation: the Dominant lead users; the Expert lead users; the Ordinary clients. We acknowledge the role of lead users in advertising and contribute to literature highlighting when they can be conducive to agency's innovation or be detrimental to it.

Introduction

Service research has widely emphasized the contribution of customers to innovation processes and their potential role as a key driver of successful new services (a.o. de Brentani and Ragot 1996; Alam 2002; Edvardsson et al. 2006; Gallouj and Savona 2009; Sundbo and Toivonen 2011; Carlborg et al. 2013; Mcmanus and Ardley, 2019). Recent research has devoted an increasing interest in the role of a particular type of customers, i.e. lead users (von Hippel 1986), in service innovation. Studies on this typology of users investigate their identification based on different characteristics and their contribution to the development of new services (Alam 2006; Matthing et al. 2006; Skiba and Herstatt 2009; Oliveria and von Hippel 2011; Carbonell, Rodriguez-Escudero and Pujari 2012; Schuhmacher and Kuester 2012).

Literature has highlighted that the contribution of customers and lead users to service innovation is related to their characteristics (Alam 2002, 2006; Kristensson et al. 2004; Edvardsson et al. 2006; Matthing et al. 2006; Schuhmacher and Kuester 2012; Brem, Bilgram and Gutstein, 2018), but it has not given univocal judgement on which customers' characteristics are likely to better support service innovation.

Moreover, with few exceptions, most studies in this area focus on the contribution of customers and lead users to new service development (NSD) in production-intensive sectors (e.g. banking and other financial services, telecommunications), where innovation is primarily developed through planned, formalised R&D projects.

Yet, service innovation research has widely recognized the multiplicity of innovation processes that exist beyond R&D formal processes aimed at developing new services (Sundbo and Gallouj 2000; Toivonen and Tuominen 2009). Moreover, the integrative (synthesis) approach to service innovation studies (Gallouj and Savona 2008) highlights that innovation in services represents multidimensional characteristics, being often the result of the interplay between different non-technological and technological dimensions (Amara, Landry and Doloreux 2009; den Hertog 2000; Gallouj 2009). Therefore, the understanding of the role and profile of customers that are conducive to service innovation requires further analysis in relation to other service innovation settings.

Given this gap, this study aims to identify the relevant characteristics of customers that can support innovation in the context of Creativity-Intensive Business Services (CIBS). These services, which are part of the broader sector of Knowledge-Intensive Business Services (KIBS), include creative professional services such as advertising, architecture, design (Strambach 2008). To the best of our knowledge, this is one of the first attempts to explore the role and characteristics of lead users in the context of the creative services and of the advertising sector in particular. More in general, few studies have been devoted to the analysis of the contribution of clients' to innovation in advertising or in other creative services, especially because of the difficulties in defining 'what innovation is' in such industries. Indeed, the conceptualization of innovation in creative services like advertising is particularly complex (Green and Miles 2010). Research on this industry provides evidence of a higher intensity of agency-clients relations, with increasingly close interactions with customers being sought for improving agency performance (Koslow et al. 2006; Duhan and Sandvik 2009; Chu et al. 2019), reciprocal learning processes and innovation (Miles and Green 2008; Hermelin 2009). Therefore, advertising provides a rich though partially unexplored area to investigate the role and characteristics of clients that are likely to support innovation.

For the purpose of this study, a large-scale empirical analysis of European advertising agencies was conducted. In order to advance the understanding of the characteristics of clients that are associated to the development of innovation in this industry, innovation in advertising was firstly investigated based on a synthesis approach that considers different technological and non-technological dimensions. More in detail, building on the existing model of Diamond of innovation by Green and Miles (2010), different innovation dimensions were explored as a pre-requisite to subsequently analyze which types of client can better support the advertising agencies' innovation, and in particular the role of lead users therein.

Literature review

The contribution of clients and the role of lead users in service innovation

The involvement of customers for the purpose of innovation is actually identified as one of the key topics to advance knowledge and practice in services area (Carlborg, Kindström and Kowalkowski 2014). Research in this field recommends that service companies should collaborate with customers in order to improve the efficacy and effectiveness of their innovation processes (Carbonell, Rodriguez-Escudero and Pujari 2012; Carbonell and Rodriguez-Escudero 2014; Edvardsson et al. 2006; Kristensson, Gustafsson and Archer 2004; Toivonen and Tuominen 2009; Sundbo and Toivonen 2011). A key issue regarding the collaboration with customers for the purpose of innovation is the selection of customers based on their characteristics (Alam 2002, 2006; Edvardsson et al. 2006). In respect the literature highlights two possible options, namely to collaborate with ordinary customers and/or lead users. Positions and evidences on this choice are partly contrasting. Some studies (Kristensson et al. 2002, 2004; Magnusson et al. 2010) support the collaboration with ordinary users as valuable sources of inputs for service innovation, observing that the lack of technical knowledge is not a drawback but rather an asset as it induces users to 'think outside the box' and to produce more original and creative ideas than professional service developers. Other studies support the involvement of lead users as a source of successful NSD and radical innovation (Lilien et al. 2002; Matthing et al. 2006; Alam 2006; Kristensson et al. 2008; Skiba and Herstatt 2009; Oliveira and von Hippel 2011; Carbonell et al. 2012).

According to the definition provided by von Hippel (1986, p. 796), «Lead users face needs that will be general in a marketplace - but face them months or years before the bulk of that marketplace encounters them, and lead users are positioned to benefit significantly by obtaining a solution to those needs». The role of lead users as important contributors to the success of innovation processes has been primarily acknowledged within the manufacturing sector (Gruner and Homburg 2000; Lüthje 2004; Urban and von Hippel 1998). Recent studies provide empirical support for their important contribution to the creation of new services as well. Carbonell, Rodriguez-Escudero and Pujari (2012) demonstrate that customer's lead userness has a positive impact on NSD performance in terms of service newness and service advantage. Their findings show that these users can support companies in the generation of innovative and superior new concepts. In a study on the sources of major banking innovations, Oliveira and von Hippel (2011) found that most of the novel retail and corporate services introduced by US commercial banks were preceded by self-provision of functionally similar or identical services by users. Skiba and Herstatt (2009) illustrate the potential impact of lead users as a source of radical service innovations. Matthing et al. (2006) support the effectiveness of involving lead users in service innovation projects in the context of new technology-based services. Their study identifies these users as a set of customers with high levels of technology readiness and demonstrate that they have the creative capacity to generate a large, diverse and original ideas for new services. Schuhmacher and Kuester (2012) address the lead user characteristics provide the ability to improve service innovation development.

They investigated how the following lead user characteristics affect the quality of service ideas generated: ahead-of-the-trend, dissatisfaction, consumer knowledge, use experience, involvement, and intrinsic motivation as well as extrinsic reward. Their findings show that only dissatisfaction with existing services, use experience and intrinsic motivation have a positive impact on idea quality. This study also contributes to the controversial discussion about the role of consumer knowledge in supporting or hindering users' contribution to the innovation process. Indeed, it is found that the potential of lead users for service idea creation is not dependent on their knowledge. This is in line with previous studies in the field of user involvement in NSD (Kristensson et al. 2004; Magnusson 2009), which support the involvement of ordinary users that cannot be expected to possess technical knowledge. In this regard, it is contented that the lack of knowledge is not a drawback, but rather an asset as it induces users to 'think outside the box' and contributes to their capability to produce more original and creative ideas than professional service developers. The literature highlights that the contribution of customers and lead users in NSD processes is related to their characteristics (Alam 2006; Kristensson et al. 2004; Matthing et al. 2006; Schuhmacher and Kuester 2012). For instance, Schuhmacher and Kuester (2012) demonstrate that specific lead user characteristics affect the quality of service ideas generated. Accordingly, the proper selection of collaborating users based on the characteristics that are conducive to innovation is a key issue for companies to be considered in order to secure their contribution to NSD processes.

Notwithstanding the rapid development of research in this area in the last years, most of studies have investigated the role and characteristics of customers and/or lead users in relation to production-intensive services – such as banking and other financial services, telecommunications – and focus on their contribution to NSD processes, where innovation is primarily developed through planned, formalised R&D projects. However, service innovation research has emphasized the multiplicity of innovation processes existing and the need to examine service innovation going beyond R&D formal processes (Sundbo and Gallouj 2000; Toivonen and Tuominen 2009). These include, for example, the practice-driven model of innovation, where the service is developed step by step together with the client, and the observation of an innovation renewal is made only 'a posteriori' (Toivonen and Tuominen 2009). Moreover, the integrative (synthesis) approach to service innovation studies (Gallouj and Savona 2008) highlights that innovation in services represents multidimensional characteristics, being often the result of the interplay between non-technological and technological dimensions (Gallouj 2009). This is particularly relevant for KIBS, including Creativity-Intensive Business Services, where complementarity has been found between different innovations forms or dimensions (Amara, Landry and Doloreux 2009; den Hertog 2000). Taking into account these peculiarities is therefore essential in order to advance our understanding of the role of customer characteristic's and lead users in promoting innovation in creative services, by acknowledging that the specific conceptualization of what innovation is for such industries affect whether and how different customers' profiles can support (or stifle) it.

Innovation in Creativity-Intensive Business Services and the role of clients

Studies on innovation in Creativity-Intensive Business Services have been scant, since only few researchers have applied the innovation perspective to the creative industries (Miles and Green 2008, 2011; de Waal Malefyt and Morais 2010; Carmelo-Ordaz et al. 2012; Bakhshi et al. 2013; Eisenman 2013; Marasco et al. 2013). The nature of the output of these firms has relevant implications for how innovation in these services can be conceptualised and realized.

The essential service-product of CIBS firms is represented by creative ideas, which can be then the object of specific activities/executions. For example, the output of advertising creativity as the big idea that can underpin a whole campaign (Hill and Johnson 2004). Since the essential product of creativity-intensive business firms is creative ideas, it is often difficult to distinguish between creativity and innovation. Due to the predominance of creative issues in these services, the innovation perspective has been long disregarded in this context. As noted by Stoneman (2007, 2010), most of innovation studies emphasize technology and functionality, thus overlooking many innovative changes in products that are more aesthetic than functional in nature, such as products in the creative economy. The author introduces the concept of 'soft innovation' to encompass non-functional innovations and claims for more research in order to capture the peculiarities of innovation in creative industries that are under-recorded or unexplored by existing studies. According to Stoneman (2007, 2010), 'soft innovation' involves changes in goods and services that primarily influence sensory perception, aesthetic appeal or intellectual appeal rather than functional performance.

Moreover, innovation processes often remain emergent and spontaneous with little formal R&D (Miles and Green, 2008). The development process of creative strategies can be described with regard to its key elements (i.e. the creative brief), structure and actors (Hill and Johnson 2004; Kover 1995). By contrast, innovation processes, are more varied and hidden, being often intertwined with the delivery of the service-product (Green, Miles and Rutter 2007; Toivonen and Tuominen 2009). For instance, with the purpose to capture 'hidden innovations' (i.e. innovation activities that are not recorded using conventional indicators), Green et al. (2007) focus on the process dimension of innovation in creative industries, to take into account the 'everyday problem solving' activity, which leads to a series of small and emerging innovations shaping the final creative product. In a subsequent contribution, Miles and Green (2008) explore hidden innovation in creative industries drawing on an approach proposed by den Hertog (2000) for conceptualising service innovation in KIBS. Based on this multidimensional perspective of innovation, the study by Miles and Green (2008) shows that creative firms are innovative and more prone to undertake wider innovation that goes far beyond the technological dimension, involving also organizational changes, new marketing concepts and strategies, advanced management techniques.

The conceptualization of innovation in CIBS is further complicated by the complex nature of the relationship between client and firms in the production of these services. As for other KIBS, the provision of these services is the result of co-production processes that usually require an intense provider-client dialogue and reciprocal knowledge exchanges for defining the nature of services to be delivered (Miles 2008; Landry, Amara and Doloreux 2012). Existing studies on KIBS, including creative professional services, highlight the role of customers as catalyst of innovation (Gadrey and Gallouj 1998; Toivonen and Tuominen 2009). In these services, innovations are often initiated by a demanding client rather than being the result of a deliberate, planned process and are recognised as such only 'a posteriori'. This is especially the case of 'ad hoc' innovations, which are a form of non-programmed, emergent innovation arising from the unpredictable rearrangement of existing knowledge in order to create original solutions and new knowledge that change the client's situation in a positive and original way (Gallouj and Weinstein 1997). In such an 'ad hoc mode' of innovation, the client's problem is the starting point of the innovation process, which takes places simultaneously with the normal service delivery, and the client is heavily involved in it as co-producer of the innovation (Gadrey and Gallouj 1998).

Clients' characteristics and contribution to advertising innovation

Within advertising literature, few studies have been devoted to the identification of clients' characteristics that are more conducive to agency's innovation. Yet, «both client and the ad agency coproduce the ad» (Koslow, Sasser, and Riordan 2006, quoted in Verbeke et al. 2010). Indeed, although considerable attention has been devoted to advertising agency-client relationships, especially during the 1980s and 1990s (a.o., Michell 1986/1987; Wackman, Salmon and Salmon 1986/1987; Beard 1996; Waller 2004; Zolkiewski, Burton and Stratoudaki 2008; Duhan and Sandvick 2009), and although the advertiser-agency relationship has been found to be critical for improving overall agency performance (a.o., Koslow, Sasser and Riordan 2006; Duhan and Sandvik 2009; Chu et al. 2019), little research exists on the role of clients in supporting agency's innovation (Taylor 2017; Keegan, Rowley and Tonge 2017) and, in particular on the role of lead users.

Among the notable exceptions, the paper from Koslow et al. (2006) finds out that sophisticated clients with high levels of experience, expertise and understanding of advertising tend to stifle agency's creativity; it has to be noted, however, that such clients are identified on the basis of characteristics similar to those of lead users. In this sense, the work from Koslow et al. (2006) achieves results contrasting to such literature asserting that lead users represent a source for service innovation, and especially for KIBS and creative services.

A research from Verbeke et al. (2010) shows instead that advertising agencies get more creative and innovative campaigns when they work with clients that are market leaders. In fact, if, on one hand, client's high level of expertise can translate into an inflexible behavior that hinders innovative efforts, on the other hand, client's with higher knowledge, skills and abilities – such as, lead users – can provide a source of valuable inputs for the generation and development of agency's new ideas and creative outputs (Verbeke et al. 2010).

More recently, O'Connor et al. (2016), through a study that replicates the research from Koslow et al. (2006) in Australia and New Zealand, have provided partially different results about the undermining role of sophistication on creativity. According to their results, the negative effect of sophistication on creativity is not always confirmed, since the interplay between the client's sophistication and other factors (i.e. use of consumer research and formal testing) can affect the final impact on the creativity of a campaign.

In addition, it has been argued that clients' contribution to agencies' innovation processes is likely to be influenced by their openness to experimentation of new ideas (El-Murad and West 2004; Koslow, Sasser and Riordan 2003; Wang et al. 2013). Concerning this issue, there is evidence that clients' openness is crucial for campaign creativity, for the development of innovative methodologies and for client's attitude to interactively work with the agency. In particular, the literature shows that the client's 'lack of daring' can negatively affect the originality and novelty of a campaign: conservative and risk-adverse clients, who prefer tried and tested approaches to more experimental ones, have a detrimental impact on agency's creativeness and attempts to explore innovative development opportunities (El-Murad and West 2004; Koslow et al. 2006; Zolkiewski et al. 2008; Marasco et al. 2013). Agencies working with risk-adverse clients may constrain their originality and creativity, because clients may be not interested in novel ideas associated with uncertain market responses (West 1999).

Others argue that the influence of the client on the originality and creativity of the advertising campaign is not to be taken for granted, because of the predominance of the agency's knowledge and skills in the creative domain. In this sense, Waller, Shao and Bao (2010) find that agencies are less influenced by client on creative work than on marketing strategies, because the creative work is the agency's expertise area.

To sum up, as it has been noted, «the idea that clients influence, enhance, or restrict their agencies' creativity is still controversial» (O'Connor et al. 2016, p. 149). In particular, which client's profile can better promote innovative campaigns is not clear, literature about this topic is fragmented and results are partially contrasting. Especially the ambiguous role of client's sophistication deserves careful examination in order to understand its final influence (i.e. positive or negative) on creativity and innovation. Therefore, additional research is needed, which, by drawing on the literature about lead users in the service innovation, can contribute to advance our knowledge about the client's characteristics that can better promote advertising agencies' innovative outcome.

The study

Research purpose and design

The previous discussion has shown the opportunity to focus on the advertising industry for advancing theory and practice on the identification of the customers to collaborate for the purpose of service innovation, and on the lead users' role. The highly interactive nature of advertising services and the complex, multidimensional nature of innovation in this context provide the possibility to improve the understanding of a key issue in service innovation research, notably the selection of the appropriate customers for boosting innovation processes, including the issue of lead users' role. Literature review, indeed, calls attention to a great lack of research on what innovation is and which clients' characteristics can shape it in the advertising context, and, more in general, in the creative services setting.

To contribute to fill this gap, this study aims at answering to the following research questions: Which client's characteristics can promote agency's innovation with regard to its different dimensions? And, do lead users enhance or stifle it?

In order to address these questions, an empirical analysis of European agencies has been conducted. This large-scale survey has been preceded by a qualitative analysis based on a single case study aimed at getting first insights for the empirical investigation. The examined case study highlighted the need to devote more attention to the conceptualization and analysis of changes relating to the purely creative, 'aesthetic' dimension of innovation. Further, it pointed to the need to better understand the complementarities between the different innovation dimensions.

Finally, the importance of client's characteristics was confirmed by the preliminary qualitative analysis carried out. Subsequently, we carried out a large-scale survey in the European setting, following the method of data collection and analysis presented hereafter.

Methodology

Data Collection and Descriptive Statistics

Data were collected via an online structured questionnaire from a sample of 1.994 European agencies. E-mail addresses for agencies were identified through the website of the European Association of Communications Agencies (EACA), which represents full-service advertising and media agencies and agency associations across Europe. The questionnaire was addressed to CEO, managing directors and account managers and asked agencies to reply with reference to their highest budget campaign completed in the former year, as our unit of analysis. This choice was functional to better capture clients' roles in 'unintentional' innovation processes intertwined with service practice, consistently with the indications of previous studies (Miles and Green 2008; Toivonen and Tuoninen 2009) and with the findings of the preliminary qualitative analysis conducted. Moreover, as discussed above, for creative services the innovation is the service.

As an incentive for completing and returning the questionnaire, respondents were promised a report summarizing the main results of the academic research. A first reminder for filling out the questionnaire was mailed out to non-respondents at the end of the first month after the initial mailing; a second reminder was mailed out at the end of the second month after the initial mailing; a third (and final) reminder was mailed out two weeks before the deadline. At the end of this procedure we obtained data from 139 companies, with a response rate of 7%. With regard to the profile of respondents (Table 1), the majority (about 80%) has been in business for 10 years or longer. Over 70% have less than 50 employees and serve both national and international market. Agencies are both independent companies (46,4%) and members of a larger group (53,6%). As to the market size, out of all the 139 agencies, about one-third counts from 11 to 20 clients, another 19,8% less than 11 clients, and 15,3% more than 50 clients.

Table 1. Respondent Agencies' Profile.

| | % |
|---|-------|
| <i>Number of years the agency has been in operation</i> | |
| < 5 years | 6,5% |
| 5-9 years | 11,6% |
| 10-20 years | 46,4% |
| 21-30 years | 20,3% |
| 31-40 years | 8,7% |
| > 40 years | 6,5% |
| <i>Number of employees</i> | |
| < 50 employees | 70,2% |
| 51-250 employees | 22,9% |
| > 250 employees | 6,9% |
| <i>Group membership</i> | |
| Yes | 53,6% |
| No | 46,4% |
| <i>Number of clients</i> | |
| 1-10 | 19,8% |
| 11-20 | 31,5% |
| 21-30 | 17,1% |
| 31-40 | 9,9% |
| 41-50 | 6,3% |
| More than 50 | 15,3% |
| <i>Served market</i> | |
| National market | 26,2% |
| National and international market | 73,8% |

Measure Development and Validation

Scales for the study consisted of newly generated items and items that had been previously utilized in the literature. Guidance for new scales was obtained from field interviews in the preliminary qualitative analysis and by construct definitions utilized in research on service innovation. Measures were conducted with a 5-point Likert scale (1=‘Strongly disagree’ and 5=‘Strongly agree’ as anchors) or through dichotomous questions (yes/no). For measure validation (Table 3), we used coefficient alpha (Cronbach, 1951) as a conventional index of internal consistency.

Agency’s innovation. Coherently with our theoretical background, we aimed to capture the multidimensional nature of agency’s innovation. For such purpose, specific items have been created to conceptualize this construct on the basis of

the ‘Diamond of Innovation’ for creative services suggested by Green et al. (2007) and Miles and Green (2008), and adapted to the advertising context (Table 2). Respondents were asked to indicate the innovative degree of the campaign selected as unit of analysis, by making reference to the following six dimensions of innovativeness: 1. in creative contents that impact on intellectual appeal (Creative_Intell); 2. in creative contents that impact on aesthetic appeal (Creative_Aesth); 3. in the channels selected to deliver the message (Channels); 4. in the technological tools adopted to reach the target (Tech_Tools); 5. in the management of human resources and internal work organization (Internal_Processes); 6. in the user interface adopted to interact and work jointly with client (Client_Interface). As it is summarized in Table 2, the coefficient alpha is above the threshold value of 0.7 (Nunnally, 1978), and our conceptualization of the construct is supported empirically.

Table 2. Constructs and Measures Validation

| Construct | Items | Coefficient Alpha |
|---|---|-------------------|
| Agency’s innovation | <i>The campaign has been innovative as to:</i> | |
| | CREATIVE_INTELL - the creative content of the message with regards to its intellectual appeal | 0.97 |
| | CREATIVE_AESTH - the creative content of the message with regards to its sensory and aesthetic appeal | |
| | CHANNELS - the channels adopted to deliver the message to final consumers | |
| | TECH_TOOLS - the technological tools adopted to reach the target | |
| | INTERNAL_PROCESSES - the management of human resources and of the internal work organization | |
| CLIENT_INTERFACE - the user interface adopted to interact and work jointly with business client | | |
| Client’s Characteristics | <i>The client of the campaign:</i> | |
| | INNO_REPUTATION - Had a superior reputation in the market for being innovative | 0.76 |
| | INNO_ORIENTATION - Had a superior orientation for innovation | |
| | EXPERTISE - Had high level of experience, expertise and understanding of advertising | |
| | KNOWLEDGE - Was knowledgeable about the latest key technologies in advertising and communications | |
| | TRENDSETTER - Was a trendsetter in its market | |
| DIFFERENT_DEMAND - Had a demand that strongly differed from the majority of clients | | |
| | SPECIFIC_NEEDS - Asked for solutions to specific unsolved needs | |

Client's characteristics. The measurement of client's characteristics refers to prior literature and to interviews conducted to refine our conceptualization (Table 2). Coherently with findings from El-Murad and West (2004), Koslow et al. (2006) and Zolkiewsky et al. (2008), we acknowledged the importance of client's openness to innovation (as opposed, instead, to a 'lack of daring' and/or a 'risk adverse' attitude). Therefore, we generated two items in the questionnaire, to capture the agency's perception of the client's external reputation for being innovative (Inno_Reputation) and of the client's superior orientation to innovation (Inno_Orientation).

In line with previous works, we also recognized the importance of the client's expertise (Expertise; Koslow et al. 2006; Sanden et al. 2006). In addition, we went along with Verganti (2003) in considering the role of the client's knowledge about the 'product language' (Knowledge). According to the author, this kind of knowledge, which relates to signs, symbols and icons for delivering a particular product message in a given socio-cultural context is crucial for co-innovation. Finally, we generated items to acknowledge the role of the lead user (Trendsetter, Different_Demand, Specific_Needs; Von Hippel 1986; Alam 2006; Oliveira and Von Hippel 2011). As shown in Table 3, the coefficient alpha exceeds the generally accepted cut-off level of 0.7.

Data Analysis

After measure validation, a two-step data analysis has been performed: a) correlations among innovative dimensions; b) cluster analysis with the aim of grouping the firms into distinct categories, which are as homogeneous as possible with respect to the innovative dimensions.

a) In order to estimate correlations among the agency's innovative dimensions we performed a polychoric correlation analysis. Polychoric correlation coefficients are the most widespread solution to estimate correlation coefficients in the case of ordinal categorical variables (Hamdan 1964; Olsson 1979). In the present work we used the R package polychor for the implementation of the algorithm (Fox 2010).

b) In a subsequent stage, a cluster analysis was performed to find homogeneous categories of agencies with respect to the innovative dimensions. Even though Latent Class Analysis (LCA) is the proper tool for clustering ordinal data, however the number of parameters to be estimated (M) quickly increases with the number of classes (C) and that of questions and of their possible answers (A_q),

Actually preventing its use for surveys with a moderate number of full answers (as it is in our case). For this reason the following three-step procedure has been adopted: i) ordinal Likert variables have been transformed to the common range [0,1] (e.g., Zani and Berziera 2008) and dealt as continuous variables, for which a classic K-means algorithm has been resorted using Euclidean distance (MacKay 2003)¹; ii) once individuals have been finally assigned to the groups by K-means, an Analysis of Variance (ANOVA) was independently performed for each question to statistically test whether the mean of the answers is the same among the C groups. Only the subset of questions whose answers are estimated to be statistically different at a significance level $\alpha=0.005$ were retained; iii) clustering is made on the selected subset of questions treating the variables as originally categorical ordinal and using LCA (Flora and Curran 2004)².

Findings and discussion

The multidimensional nature of advertising innovation

Results demonstrate the existence of complementarities between different innovation dimensions of advertising. More in detail, as shown in Table 3, the results confirm the existence of complementarities between some pairs of innovation dimensions rather than others. Whereas some correlations were expected, others suggest new insights, as discussed below.

Table 3. Correlation Matrix Results relating to Innovation Dimensions.

| | CREATIVE_INTELL | | CREATIVE_AESTH | | CHANNELS | | TECH_TOOLS | | INTERNAL_PROCESSES | | CLIENT_INTERFACE | |
|--------------------|-------------------|---------|-------------------|---------|-------------------|---------|-------------------|---------|--------------------|---------|-------------------|---------|
| | Coeff. (ρ) | P-value | Coeff. (ρ) | P-value | Coeff. (ρ) | P-value | Coeff. (ρ) | P-value | Coeff. (ρ) | P-value | Coeff. (ρ) | P-value |
| CREATIVE_INTELL | | | | | | | | | | | | |
| CREATIVE_AESTH | 0.687** | 0.000 | | | | | | | | | | |
| CHANNELS | 0.134 | 0.141 | 0.201 | 0.049 | | | | | | | | |
| TECH_TOOLS | 0.088 | 0.234 | -0.012 | 0.460 | 0.546** | 0.000 | | | | | | |
| INTERNAL_PROCESSES | 0.191 | 0.053 | 0.238* | 0.018 | 0.096 | 0.216 | 0.230* | 0.023 | | | | |
| CLIENT_INTERFACE | 0.369** | 0.000 | 0.363** | 0.000 | 0.331** | 0.002 | 0.428** | 0.000 | 0.430** | 0.000 | | |

Number of observations: 90 in the average.

** The coefficient is significant at the 1% significance level. * The coefficient is significant at the 5% significance level.

A significant correlation is found between the two specific dimensions of innovations relating to the development of novel creative concepts, namely between the creation of contents that primarily impact on the intellectual appeal of the creative message (Creative_Intell) and the creation of contents that primarily impact upon aesthetic appeal (Creative_Aesth).

This was expected as both these dimensions of innovation are linked to the creativity of campaigns and both concern the production of original ideas for communication and novel contents and meanings (Miles and Green 2008). However, it is interesting to notice that while Creative_Aesth is also correlated with the dimension Internal_Processes, Creative_Intell is not. Creative_Intell is also correlated only with the dimension Client_Interface. Therefore, we can suggest the existence of two complementary aspects of creativity (one aesthetical, the other intellectual), which *both* inform innovation in creative concepts of advertising campaigns, but which draw on two different sources: the aesthetic creativity (Creative_Aesth) mainly relies on internal processes and resources, that is on agency's prior experience and

learning; instead, the intellectual creativity (Creative_Intell) is more likely linked to the market, to the on-going external trends, to what we could define a ‘conceptual mood’ of the moment and, not surprisingly adopting this view, ends to be related only to the innovation generated in the user interface adopted to interact and work jointly with the client.

Our results also provide evidence of significant correlations between the technological dimension (Tech_tools) and the innovation in delivery channels (Channels), on one side, and the innovation in the dimension related to internal production processes and resources (Internal_Processes), on the other side. These findings were also expected, since they are in line with the increased use of technology (Sarrazin and Sikes 2013), both as new ‘vehicles’ of advertising contents and as tool for supporting the internal management of advertising campaigns (Green and Miles 2008)

Finally, an interesting result emerged from the analysis is that innovation in the client interface dimension (Client_Interface) is significantly correlated with all the other dimensions. This may suggest that efforts to improve the interaction and joint work practices with clients are conducive to changes in other technological as well as non-technological dimensions. This would confirm previous literature on KIBS highlighting that the way the service provider interacts with the client can itself be a source of innovation (Gadrey and Gallouj 1998; den Hertog 2000; Toivonen and Tuominen 2009).

The relationship between client’s characteristics and agency’s innovation, and the lead user role

In the subsequent step of the analysis, a cluster analysis has been performed in order to understand whether and how clients embodying specific characteristics - and in particular, lead users – contribute to the multidimensional agency’s innovation. The results show the existence of three clusters that are clearly distinct and that can be meaningfully interpreted. Descriptive information regarding the three clusters is reported in Table 4. We label Cluster 1 ‘Dominant lead users’, Cluster 2 ‘Expertlead users’, and Cluster 3 ‘Ordinary clients’, because of the reasons that we discuss in the following.

Table 4. Clusters based on Agency’s Innovation and Characteristics of Clients.

| | Cluster 1 | | Cluster 2 | | Cluster 3 | | |
|--|----------------------|-----------|---|-----------|-----------------------------|-----------|-------------------|
| | Lead User (19.4%) | | Lead User with High Expertise (50.0%) | | Ordinary Clients (30.6%) | | |
| | Scale Mean | Std. Dev. | Scale Mean | Std. Dev. | Scale Mean | Std. Dev. | ANOVA p-value* |
| Client with superior reputation for innovation (INNO_REPUTATION) | 3.7 | 0.2 | 3.3 | 0.1 | 1.9 | 0.2 | 0.000 |
| Client with superior orientation to innovation (INNO_ORIENTATION) | 3.5 | 0.3 | 3.4 | 0.1 | 2.2 | 0.2 | 0.000 |
| Client with high expertise (EXPERTISE) | 3.4 | 0.3 | 3.9 | 0.2 | 2.8 | 0.2 | 0.002 |
| Client with high knowledge (KNOWLEDGE) | 3.6 | 0.2 | 3.6 | 0.2 | 2.4 | 0.2 | 0.000 |
| Trendsetter client (TRENDSETTER) | 4.0 | 0.2 | 3.3 | 0.1 | 1.8 | 0.2 | 0.000 |
| Client with a different demand from the majority of clients (DIFFERENT_DEMAND) | 3.8 | 0.3 | 3.0 | 0.2 | 2.9 | 0.2 | 0.028 |
| Client asking solutions to specific unsolved needs (SPECIFIC_NEEDS) | 3.4 | 0.3 | 4.0 | 0.1 | 3.8 | 0.2 | 0.170 |

| | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-------|
| Innovative campaign in Creative Content / Intellectual Appeal (CREATIVE_INTELL) | 3.1 | 0.4 | 4.2 | 0.1 | 3.7 | 0.2 | 0.008 |
| Innovative campaign in Creative Content / Aesthetic Appeal (CREATIVE_AESTH) | 2.4 | 0.4 | 4.0 | 0.2 | 3.5 | 0.2 | 0.000 |
| Innovative campaign in Delivery Channels (CHANNELS) | 2.8 | 0.3 | 4.6 | 0.1 | 4.1 | 0.1 | 0.000 |
| Innovative campaign in Technological Tools (TECH_TOOLS) | 3.2 | 0.4 | 4.1 | 0.1 | 3.8 | 0.2 | 0.033 |
| Innovative campaign in Internal Processes & Resources (INTERNAL_PROCESSES) | 2.9 | 0.4 | 3.4 | 0.2 | 3.1 | 0.3 | 0.435 |
| Innovative campaign in Client Interface (CLIENT_INTERFACE) | 2.3 | 0.3 | 3.9 | 0.2 | 3.2 | 0.2 | 0.000 |

Likert Scale: 1= strongly disagree; 5=strongly agree. Standard deviation refers to the estimate of mean.

** Threshold value: 5%.*

First of all, advertising agencies in Cluster 1 and 2 (but not in Cluster 3) implement a campaign for a client that shows lead user characteristics. According to our findings, indeed, such clients are consistent with the definition provided by Von Hippel (1986, p. 796): «Lead users face needs that will be general in a marketplace - but face them months or years before the bulk of that marketplace encounters them, *and* Lead users are positioned to benefit significantly by obtaining a solution to those needs». In our case, agencies belonging to Cluster 1 and to Cluster 2 work with clients who clearly act as forerunners, anticipating the general market demand, because they show a different demand from the majority of clients (Different_demand) and they are perceived by the agencies as trendsetters in their markets (Trendsetter). In addition, they seem to be in a position to understand and leverage the agency's innovation, and even to provide a significant contribution to it as a source of novel ideas: indeed, our results show that clients of the agencies in Clusters 1 and 2 are perceived by the agency itself as superior on average to those of Cluster 3 in reputation in the market for being innovative (Inno_Reputation), in the orientation for innovation in language and communication (Inno_Orientation), and in the knowledge about the latest technologies in advertising and communication (Knowledge). In this respect, our findings are in line with previous studies on lead user innovations (Luthje, 2004) that consider consumer knowledge as a prerequisite for generating innovations.

At the same time, they contrast research in the field of user involvement in service innovation, according to which the potential of lead users for idea generation is not dependent on their knowledge (Kristensson et al. 2004; Magnusson 2009; Schuhmacher and Kuester 2012). Whether clients working with agencies both in Cluster 1 and in Cluster 2 can be defined lead users, they also show other interesting and different features.

It has to be noticed, indeed, that clients of Cluster 2 are statistically significant superior both to Cluster 1 and 3 in experience, expertise and understanding of advertising (Expertise). In addition, such value is the higher within the cluster, with reference to the client's characteristics. For these reasons we label such clients as 'Expert lead users'.

Instead, clients working with agencies belonging to Cluster 1 are statistically significant superior both to Cluster 2 and 3 in reputation for innovation (Inno_Reputation), superior orientation to innovation (Inno_Orientation) and as trendsetter (Trendsetter). This last value, in particular, is the higher within the cluster (and also between the three cluster), with reference to the client's characteristics. Altogether, these features can be consistently interpreted as traits of a client profile that we label as 'Dominant lead user'. These clients, indeed, show not only the lead user's features, but according to the agency's perception they are also recognized as firms who leads the way in novel ideas and as innovators themselves.

Altogether, the features and the differences between Cluster 1 and 2 seems to be interesting results, as it will be discussed following in relation to the different innovation dimensions. Cluster 3 is labeled 'Ordinary clients' because advertising agencies belonging to it perform campaigns for clients, who display statistically significant inferior averages for all the previous characteristics discussed (Inno_Reputatio, Inno_Orientation, Knowledge, Trendsetter,

Different_Demand). Therefore, in such case the advertising agency is expected to create a campaign for clients being more 'conservative' and less motivated to generate new ideas that «conflict to the familiar» (Von Hippel 1986, p. 791). Moreover, these clients do not show an expert profile (Expertise), therefore offering the opportunity to explore whether such circumstance has an impact or not on the agency's innovation, as it will be deepened later on.

Moving to the analysis of the level of the agency's innovation in the three clusters, interesting results emerge.

As it can be seen in Table 4, agencies belonging to Cluster 2 are superior to other clusters in all the innovative dimensions of the analyzed campaign. In other terms, those agencies declaring to work with clients that we have defined as 'Expert lead user' are those also performing the best results in terms of innovative output (in all its complementary dimensions that are statistically significant). This is an expected result, because lead users may contribute to the innovation of the advertising agency, by proposing a new idea or a new solution to the problem, at a highest level of involvement (Von Hippel 1986; Lilienet al., 2002; Verbakeet al. 2010). Moreover, this result is in line with previous research demonstrating that the high use experience of lead users can provide ideas of high quality (Schuhmacher and Kuester 2012).

But the other results contribute to describe a more complex and interesting picture. Contrary to Cluster 2, Cluster 1 unexpectedly present lower value in all the innovation dimensions, not only in comparison with the 'Expert Lead Users', but also with the 'Ordinary Clients'. Indeed, if we compare Cluster 1 with Cluster 3, we realize that on average the latter performs a more innovative campaign (Table 4: dimensions Creative_Intell, Creative Aesth, Channels, Tech_Tools and Client_Interface). In other terms, agencies creating a campaign for 'Ordinary clients' surprisingly obtain a higher innovative result than those belonging to the cluster of the 'Dominant lead users'. That was a not expected outcome at all, and provide new insights into the role and the characteristics of clients in advertising co-innovation processes. According to our results, those agencies that create a campaign for a 'Dominant lead user' get a lower innovative output both than those working for an 'Expert lead user' and for an 'Ordinary client'.

Therefore, we could say that *being a lead user is not a necessary or a sufficient condition for most improve the agency's innovation*, because other characteristics of the client must be taken into account. Indeed, when the agency works with lead users also showing high level of experience, expertise and knowledge of the 'product language' (as those in Cluster 2), the results in terms of innovative output are definitely higher than those that can be obtained through the relationships with ordinary clients.

By contrast, when a lead user is also 'dominant' – that is a trendsetter, a renowned innovator with strong orientation towards novel ideas and solutions – it is likely that the advertising agency would be used merely as a 'service provider' to implement what has been already internally decided by client, so stifling agency's innovation. In other terms, we could say that Dominant lead users may have a 'chilling' effect throughout the agency (clients ask and get what they want; Koslow et al. 2006), thus dampening its creative potential. This is in line with previous research showing that being ahead of the trend shows a negative impact on idea quality (Schuhmacher and Kuester 2012).

This seems to be confirmed also when looking at the dimensions of the innovation outcome. The lowest values within Cluster 1 are for innovation in creative content that impacts on aesthetic appeal (Creative_Aesth) and in the client interface (Client_Interface): aesthetic creativity co-produced with clients does not seem to be relevant, while the interface does not appear so necessary since the client dominates the relationship. Therefore, from the point of view of the agency, it would be preferable working with ordinary clients than with dominant lead users.

Hence, our findings provide empirical evidence for the role of lead user – so far overlooked in the study on creative services – and, at the same time, they contrast a 'rhetoric approach' according to which the lead users are *always* associated with more innovative results, while they assign a 'moderating role' to others characteristics of client's profile, which would deserve a deeper attention in future research analyzing innovation in this context.

These findings also contribute to an open debate in the literature related to the potential influence of sophisticated clients on collaborative innovation. In this sense, Koslow et al. (2006) conducting an analysis of clients' influence on advertising creativity, found out that sophisticated clients with high levels of experience, expertise and understanding of advertising tend to stifle agency's creativity. However, this seems to conflict with studies on lead users, which argue that client's high level of expertise and knowledge can provide a source of valuable inputs for the generation and development of new ideas/products/services (a.o. Urban and von Hippel 1988).

In this study we consider the multiple dimensions of innovation, not only the 'creative content', and that is one of our contribution to literature. However, our results could provide an empirical explanation for such contrasting hypothesis, suggesting that 'client sophistication' is only a partial aspect of the problem, while others client's characteristics have to be considered in order to clearly understand the impact on the agency's creativity.

This is in line with a recent study by O'Connor et al. (2016) suggesting a 'more nuanced approach' to the hindering role of sophistication on creativity in advertising.

To sum up, our findings cut European advertising agencies in three clusters that clearly differ for the characteristics of the involved clients and for the innovativeness of the output. The higher innovative campaigns are performed by those agencies working with clients that show the lead users characteristics and also high level of experience, expertise and understanding of advertising (Cluster 2 – Expert lead users). The lower innovative campaigns are performed by those agencies working with Dominant lead users, which are also characterized by a superior reputation and orientation for innovation and that are renowned as trendsetter (Cluster 1). Finally, those agencies working with Ordinary clients perform medium results in terms of innovativeness of the campaign (Cluster 3). The innovative outcome of the agencies working with such clients are even superior to those achieved by agencies working with Dominant lead users in all the different dimensions of innovation. This is particularly interesting because, the lead user concept has been so far overlooked in the analysis of innovation processes of advertising, while it could contribute to shed light on interesting dynamics underpinning innovation in this context.

Conclusions

During the last years, an increasing attention has been devoted to the role of customers as key contributors to service innovation (Kristensson et al. 2008; Magnusson et al. 2010). A number of studies have investigated customers' characteristics that are conducive to innovation in order to support firms in the selection of the customers to collaborate with. A particular attention has been given to the application of the lead user concept in the service context. However, research in this area is mostly founded on the NSD perspective and focuses on planned, formalized development projects of production-intensive services. The multidimensional nature of service innovation, including technological as well as non-technological dimensions, is quite overlooked by studies in this area. This creates the need to further address the characteristics of customers that are likely to support innovation, based on an integrative approach that considers service innovation in relation to different dimensions and in relation to other service innovation settings (Gallouj 2008; Gallouj and Savona 2009). In particular, only few studies have been devoted to the analysis of which client's profiles are more conducive to innovation in advertising or in other creative services, and large-scale empirical evidence on this topic is even more scant.

Starting from this, this study explores the relationship between clients' characteristics and innovation in the advertising context, where a multidimensional conceptualization of innovation is adopted based on previous studies (Green et al. 2007; Miles and Green 2010).

The results support this conceptualization, by providing empirical evidence to the theoretical model proposed by Green et al. (2007 – 'the Diamond of innovation'). Moreover, they highlight the relevance of changes beyond the purely creative, 'aesthetic' dimension of innovation, and the complementarities among them. Our findings on the multidimensional nature of innovation shed light on an interesting aspect to be further explored in the next steps of the research, which can advance the understanding of what 'creativity' is and where it comes from. In this direction, it will be also interesting to further develop research to understand whether the contribution of client may vary with reference to the different (intellectual *versus* aesthetic) innovative contents.

As to the client's profile that can better support agencies' innovation, our results display the existence of three clusters of the surveyed European advertising agencies that clearly differ for the characteristics of their clients: 'Dominant lead users' (Cluster 1), 'Expert lead user' (Cluster 2) and 'Ordinary clients' (Cluster 3).

This is particularly interesting because the lead user concept has been so far overlooked in the analysis of the innovation processes of creative services, while it could contribute to shed light on interesting dynamics underpinning co-innovation in the advertising context. According to our findings, lead user clients could play an important role in innovation processes of advertising agencies. However, the lead user features are not always associated with more innovative results: that is the case when such clients also show high level of expertise and understanding of advertising, but not when they display a 'dominant' profile. In this latter situation, indeed, working with ordinary clients would be preferable in terms of innovative outcome from the agency point of view.

Therefore, we acknowledge the role of lead users in advertising services, but we also recognize that different innovation enabling clients' profile emerge, and that being a lead user is not a necessary or a sufficient condition for most improve the agency's innovation. In brief, our results suggest that multiple characteristics of client's profile have to be taken into account in order to understand whether an ordinary client or a lead user is more likely to support innovation in advertising services. In this respect, we contribute also to address an open and unsolved debate in literature as to the potential influence of 'sophisticated' clients on collaborative innovation (Urban and Von Hippel

1988; Verganti 2003; Koslow et al. 2006; O'Connor et al. 2016). In addition, we align with more recent research underlining the importance of deepening our understanding about how different lead user's characteristics affect the contribution given to service innovation, recognizing that the lead user concept cannot be applied equally in all contexts and that their potential role can also be not necessarily supportive to innovation (Schuhmacher and Kuester 2012).

From a managerial point of view, when aware of the potential contribution that clients can give to innovation according to their profile, agencies can improve the selection of clients to collaborate with. Indeed, the recognition of different dimensions of innovation is conducive to a more effective approach to the management of innovation processes also in relation to the collaboration with clients. This is a particularly relevant issue in the examined services, which are deeply shaped by the highly interactive nature of agency-client relationships. Research and practice have shown that the agency-client relationship has relevant implications for the production of the creative service-product and the performance of agencies. In this respect, this study contributed to supporting the potential relevance of clients' contribution also in relation to the development of innovation in its different forms.

Limitations and future research

This study presents several limitations that have to be taken into account when considering its results. First, respondents were asked to focus on their highest budget campaign, in order to define a common unit of analysis. However, focusing on the highest budget campaign could have been resulted in the selection of mainly big clients, who are likely to have a larger marketing staff than the agencies themselves, which may impact their predisposition and ability to contribute in co-creative acts that foster forms of innovation. Future research should seek to identify and apply more detailed proxies able to reduce this self-selection bias, still in a large-scale survey. In addition, our survey response rate is only 7%. To the best of our knowledge, this is the first attempt to undertake a similar large-scale analysis in advertising services. Collecting data about almost 2000 firms in the European setting, identifying and contacting key informants therein, managing the procedure of mailing the questionnaire and sending reminders to non-respondents (in three rounds) represented a difficult task and a complex process that for an explorative research, such as our study, justify the value of the responses obtained. Indeed, collecting data in service innovation research is a complicated issue, especially when moving from formalized to hidden innovation. However, the low response rate represents a point of concern when evaluating our results and future research should verify how and to what extent it affects both the research and the managerial implications. Finally, the inability to use LCA for the cluster analysis, as motivated in the paper, forced us to choose a more complex three-stage method. In any case, while through LCA we would have measured parameter estimates and segment membership simultaneously, by adopting the multi-staged K-means approach we did not. Notwithstanding these limits, we believe that future research could draw on our results to deepen our comprehension about the role of customers, and in particular lead users, in the innovation of creative services, for instance by replicating this study in other settings (such as design or architecture), and/or by identifying and testing other internal or external factors that integrate (or modify) what emerged in this paper.

Notes

¹ Clustering of ordinal categorical variables is sometimes accomplished by transforming the categorical variables to a common range (e.g., [0,1]) and then relying on the classical clustering analysis of continuous variables (e.g., Zani and Berziera 2008). In this respect K-means is one of the most consolidated methodologies (see, e.g., MacKay 2003 for a review). It sorts N individuals in C classes minimizing a measure of distance within by an iterative procedure. The distance measure has been chosen as Euclidean. To overcome the problem of multiple solutions, K-means has been initialized with 10 different configurations by different random seeds and the solution with the lowest global distance has been selected. In the present work we used the script k-means from the Statistics toolbox of the Matlab environment for the implementation. K-means does not select the number of classes, for which some estimators exist (e.g., AIC, BIC).

² LCA is a statistical methodology aimed at clustering multivariate categorical data as coming, e.g., from surveys, without approximating them as continuous variables. It discovers a hidden (latent) categorical variable behind some observed (manifest) categorical variables; latent classes (i.e., groups) are also found such that responses to the manifest variables are independent conditionally on the classes (see Flora and Curran 2004 for a thorough treatment). The model underlying LCA is that the probability to obtain a response pattern is a weighted average of the class dependent probabilities and that the latter, assumed as independent within each class, factorize with the responses. Assignment of each individual to its class is accomplished by maximizing the posterior probability given by the Bayes rule. In the present work we used the R package poLCA for the implementation (Linzer and Lewis 2011, 2013). LCA does not select the number of classes that is given as an input; however, several criteria exist to estimate it from the available data (e.g., AIC, BIC, see Flora and Curran 2004).

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