How Online Recommendation Agents Affect Consumers’ Search and Post-Purchase Evaluation of Professional Services: Evidences from the Notary Sector

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Abstract
Online recommendation agents (RAs) received significant attention in recent years. However, while the literature abounds of studies about RAs in consumer products, any study has empirically investigated their impact in the specific field of professional services. We bridge this gap by investigating users of an online RA that provides recommendations about notaries. We test an enlarged framework grounded on the integrated trust-TAM that includes customers’ perception of the RA’s ability to reduce client-supplier information asymmetry, and customer satisfaction with the professional service provider. Findings drawn from a sample of 188 users show that in addition to perceived platform attributes of ease-of-use and usefulness, users’ trust in the RA and perceived reduction in information asymmetry play a central role in determining the users’ decision to following or not to follow the recommendation received. Users who chose a recommended notary are more satisfied of the service provider than users who chose non-referred service providers.

1. Purpose of the paper, literature addressed and results
Among the multiple web-based applications that consumers can use to collect pre-purchase information online recommendation agents (RAs) received significant attention in marketing research (e.g. Häubl & Trifts, 2000; Smith et al., 2005; Punj & Moore, 2007). RAs are “software agents that elicit the interests or preferences of individual users for products, either explicitly or implicitly, and make recommendations accordingly” (Xiao & Benbasat, 2007). Staying in the middle between clients and supplier, RAs have thus the ability to shift the bargaining power from the supplier to the customer, as they reduce the information gap between them. For this reason, RAs are considered relevant especially when consumers lack sufficient knowledge of the product/service being purchases favoring collecting relevant information not otherwise readily available (Diehl et al. 2003; Kowatsch & Maas, 2010). Despite of this evidence, research specifically dealing with RAs designed to aid consumers’ service purchasing processes, which are widely acknowledge as to holding a higher degree of information disparity between demand and supply, are in short supply. Extent empirical research is in fact largely focused on tangible goods such as consumer electronics (Komiak & Benbasat, 2006; Wang & Benbasat, 2007; Vijayasarathy & Jones, 2010; Aksoy et al. 2006; Senecal & Nantel, 2004), apartments (Moore & Punj, 2001), cars (Urban et
al., 1999; Pereira, 2000, 2001), books, movies and other media contents (Sinha & Swearingen, 2001; Hostler et al., 2011; Cooke et al., 2002). Although a certain degree of information asymmetry is inevitable in every type of market transaction (Nayyar, 1990), there is a specific category of services where information asymmetry assumes its highest peak: professional services (Sharma, 1997; Løwendhal, 2005; von Nordenflycht, 2010). Professional services are knowledge-intensive services consisting in the application of knowledge encoded in an intangible output, implying a high degree of personal judgment by the expert involved, a high level of interaction between client and professional service supplier, and a significant degree of uncertainty about what is actually being delivered (Sharma, 1997; Løwendhal, 2005). Mostly consisting in discretionary advices transferred to clients, professional services are characterized by “opaque quality” (von Nordenflycht, 2010) which refers to the difficulty for the clients to evaluate the quality of the professional output both before and after the delivery (Starbuck, 1992). To prevent against the negative consequences stemming from opaque quality, professional services are generally delivered within the constraints of professional norms that forbid a range of commercially competitive behavior, such as soliciting competitors’ clients, using advertising (Cox et al., 1982), and competing on price (Morrison & Wilhelm, 2004). Despite of these strict competitive regulatory norms, web sites specifically dealing with professional services are flourishing (Drennan & McColl-Kennedy, 2003; Hogg et al. 2003; Lemire et al., 2008; Lunt et al., 2010). Yet, any study to date has focused on the effects that RAs play in the specific context of professional services. This is surprising because as reducing such asymmetry is a main raison d'être of online RAs (Wang & Benbasat, 2007), investigating their usage in the professional service context allows understanding how these agents affect customers’ decision processes and post-purchase service evaluation, when information asymmetry is highly relevant (Sharma, 1997; von Nordenflycht, 2010). Given this gap, this research aims at shedding lights on if and how the usage of a RA dealing with professional services affect consumers’ purchasing processes and decisions, and their post-purchase evaluations of the service once acquired. Specifically, the research questions this research answers are put forward as follows. Do users that followed and users that did not follow the recommendation received have different evaluations of the RA? Do users that followed and users that did not follow the recommendation received have different perceptions of the RA’s ability to reduce the information gap between them and the professional service provider? How does the consumer’s decision of following or not following the recommendation affect their post-purchase evaluation of the service provider suggested by the RA? To answer these questions we provide
and test a research framework grounded on the integrated trust-technology acceptance model (TTAM) (Benbasat & Wang, 2005), that includes customers’ perceived ability of the RA to reduce the information gap between professional service’s buyer and supplier, and post-sales service satisfaction with the professional service provider to discriminate between users that followed and users that did not follow the recommendation received. A decision tree procedure with exhaustive chi-square automatic interaction detection was used to provide a descriptive model of RA perceptions associated with users’ behavior of following or not following the recommendation received. Structural equation modeling and multi-group analysis were used to test for users’ different perception of the RA’s ability to reduce the client-supplier information gap, and for different level of satisfaction with the professional service provider between users that followed and users that not followed the recommendation received by the online RA. We used Notaio Facile, an online RA that offers recommendations about notaries and notarial services, as a suitable research context. The results drawn from a sample of 188 users show that users who chose a recommended professional were more satisfied, not only with all attributes of the platform, but also with their choice of service provider than users who chose non-referred service providers. Platform trust and perceived reduction of information asymmetry were particularly important in the evaluation systems of users who chose a recommended service provider while users who chose a service provider other than those suggested were more strongly influenced by their generic evaluation of platform usefulness. Users who evaluated the RA as highly useful and also reported high scores for “perceived reduction of information asymmetry” were the most likely to choose a notary among those suggested by the RA. On the contrary, the evaluations most strongly associated with choice of a notary different from those suggested by the RA showed low to moderate values of “perceived usefulness and low values of “trust in the RA” “Ease-of-use” does not provide additional information about notary choice, even when “perceived reduction of information asymmetry” and “trust in the RA” are excluded from the variables entered into the model. In addition to provide the elements that affect the most the users’ decision to follow or not the recommendation received, results of the structural equation modeling and of the subsequent multigroup analysis performed also allow to shed lights on the relationships among constructs, their strengths and the latent mean that each of the constructs assume. The results unveil that users that followed a recommendation received give higher evaluations of “ease-of-use”, “trust”, “perceived usefulness”, and “perceived reduction of information asymmetry”. The test of differences in latent means’ constructs also unveiled that users that chose a recommended
notary have higher rates of post-purchase satisfaction towards the professional service provider than those that used NF but purchased the professional service from a notary other than those suggested. This finding is highly interesting as it underlines two effects: first, the RA investigated works as a boundary-spanning between the usage of the technology and the commercial relationship it intermediates. Thus, positive evaluation of the RA have effects also over the commercial relationship they mediate. Second, that given the centrality that trust assumes in this context, the RA we focused on works as a sort of trustworthy partner of behalf of the professional service providers they recommend. Since satisfaction towards a professional service provider is tightly linked with the feelings of trust they nurture toward the provider, and since trust is highly linked with the amount of information transferred to client in the pre-purchase phase (Lovelock, 1983), the interposition of a RA allows adding an additional source of trust that benefits also the client-provider relationship.

2. Theoretical contribution
The paper offers several potential contributions to the literature. First, it examines use of an online agent that does not readily fit within existing classification schemes, but has the potential to offer great value to both professional service providers and their clients. Specifically, the research is conducted in a context in which due to the characteristics of professional services and of the regulatory norms characterizing their delivery, traditional RAs are difficult to be deployed. Second, it reports findings on client satisfaction with the professional service provider - not just the platform itself – and compares satisfaction and system’s evaluation of clients who chose a recommended service provider with users that despite have used the system, did not follow the recommendation. We thus inform readers about the role of the RA in clients’ experience of actual professional service provision, rather than focusing only on the system itself. The results are of theoretical importance as they show that trust in the agent plays an important role over users’ choice of professional service providers as well as their evaluation of the agent’s ability to reduce information asymmetry between prospect clients and professional service providers.

3. Practical implications
The paper is also of value to practitioners. The type of platform described provides a model for other groups of professional service providers, or client groups, seeking to reduce barriers by reducing the information gap between providers and clients. The results confirm that individual service providers seeking an alliance with an online RA should take account not only of the
ease-of-use of the agent or of its generic usefulness, but also (and foremost) of
the ability of the agent to convey trust and to commit itself to reduce the
information gap between client and professional service providers.
Specifically, since ease of use was found of secondary importance, owners of
these RAs can devote less attention to technical details dealing with the
website’s functionalities while giving extensive importance to those elements
related to the way in which users’ generate feelings of trust towards the agent.
For example, extensive but easy to read descriptions of the content of
professional services, transparency about the way through which
recommendations are given, and other aspects that can increase users’
trustworthiness toward the online RA are undoubtedly beneficial to push users
to use the service and to follow the recommendations given. Besides trust,
putting emphasis of the way through which the system allows bridging
information asymmetry between clients and professional service providers is
another elements that proponents of RAs in the field of professional services
should give emphasis. The results suggest that the users’ likelihood to follow
or not a recommendation received is tightly connected with their positive
evaluation about the system’s ability to provide those additional information
related to the pre-purchasing phase that allow to make the search and choice
of a professional service provider easier and less challenging.

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