

# Patient engagement in online community: a mediation path

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## **Patient engagement in online community: a mediation path**

### **Abstract:**

This work intends to verify how online communities affect the intention to use a medical centre (MC). Adopting a mediation model, we found that participation to a MC's blog develops into trust toward the web platform determining intentions to choose the MC.

In the field of public services, we are witnessing significant changes both on the regulatory and on the managerial levels. The factor that pushed the most towards change was probably the technological innovation that allows low-cost solutions not previously available. An example in this sense are the online platforms used to involve citizens in collective decisions. In the case of medical services, the problem becomes more complicated due to the distance from the information point of view between the doctor and the patient. In this sector, online communities play a very important role because they increase the amount of information available to the patient, allow to tell the stories of those who have already gone in the same situation, make more transparent the relationships between the various players involved.

*Keywords: medical services, online communities, mediation model*

*Track: Public Sector and Non-Profit Marketing*

## **1. Introduction and theoretical background**

Public services have for some time been subjected to the same competitive pressure as private services. Indeed, it is probably even more difficult to communicate the value of the service offered for at least two reasons: on the one hand the information asymmetry between supplier and citizen is much greater than in other types of services and, on the supply side, some regulatory constraints do not allow the room for maneuver necessary to fully achieve the goal.

In addition because of public finance needs, service providers are asked to “do more with less”. This result appears to be particularly difficult to achieve since an increase of quality translates into an increase of costs for the public sector (Bloom et al., 2015).

A major contribution to solve the problem is the switch from the focus on the procedural dimension, traditionally characterizing the activities of a public administration, to a market orientation and the use of typical tools of corporate communication.

The effects of these practices, at the moment, are beyond expectations even if Western countries witness numerous attempts of increasing service satisfaction and perceived value, enlarge the number of providers, creating community of users and strengthening trust towards the service provider (Kemp et al., 2014). In these countries, i.e., private centres can deliver a number of medical services with a deductibles or co-pays options making users more selective about their choice between available alternatives (Sparer, 2011). As a consequence, medical centres are increasingly experiencing the classical marketing issues of the service sector since healthcare “is one of the most important, yet personalized services a consumer experiences” (Kemp et al., 2014 p. 126).

A recent trend to reduce the distance between service expected and service received is to adopt new web-based platforms to provide dialog and information exchange between professionals and service users. As an instance, Agostino (2013) in a study conducted on 119 EU municipalities shows that the adoption of social media by public administrations is growing

even if the citizens' awareness is still low. This is consistent to general service marketing literature reporting that companies managing the so-called "engagement platforms" have the opportunity to gain several benefits, including the possibility to manage co-creation of value (Ramaswamy & Ozcan, 2016; Brodie et al., 2013; Raacke and Bonds-Raacke 2008; Sawhney et al., 2005) or simply participate. "People want their experiences to matter" (Hodgkin et al, 2018). *Care Opinion* allows sharing information and improving solutions or *Patients Like Me* collects patient feedback about therapies.

For this reason, many suppliers, exploiting the potential of new technologies and, above all, the use of social networks, have developed platforms for dialogue with citizens or users of the service. Managing a web-based platforms to develop customer engagement and to strengthen the relationship between the Medical Center (MC, hereafter) may have different benefits since engaged customers "play a key role in viral marketing activity by providing referrals and/or recommendations for specific products, services, and/or brands to others" (Brodie et al., 2011 p. 252). Noteworthy, managing a web-platform such as a blog or a Facebook page related to a health service provider requires managing resources designed around the MC's activities and brand, resulting in a special kind of brand community (Dholakia et al., 2004).

On the patient side, they join online communities to "to seek useful health information and empathetic support" (Zhao et al, 2013).

There are, at least four main reasons why online health communities are valuable (Hodgkin et al, 2018):

1. They provide patients and caregivers with new resources.
2. They offer new insights to non-patients.
3. They challenge traditional power dynamics between patients and clinicians
4. They form part of a growing trend in data collection

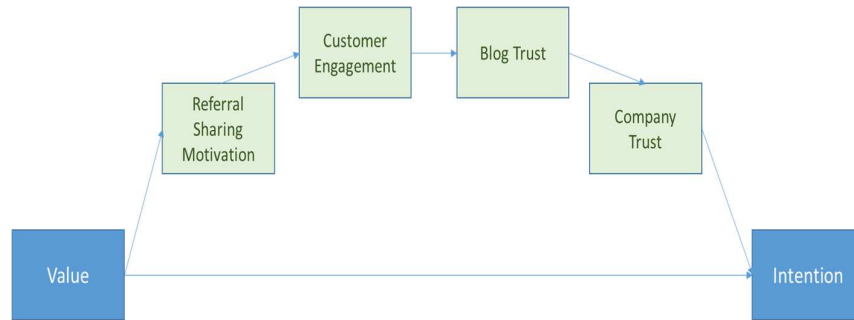
Surprisingly, service management literature has neglected the path that brings the patient to trust in healthcare service provider. As an exception, Kemp and colleagues (2014) include trust in their framework, but they consider it as a determinant of relational outcomes and not as an outcome of a relational process.

In this paper, we present an empirical analysis aimed at assessing a causal path from the customers' motivations to engage into the information exchange process of a MC's blog to behavioural intentions toward the company. In particular, we aim at determining the mediating role of trust in developing the intention to purchase healthcare services provided by the MC. Furthermore, we explore the moderating role of the individuals' disposition to gather and share information on the web on the path from motivations to behavioural intentions.

## **2. Hypotheses and theoretical model**

Motivations for participating in social networking sites rely on the perceived value of the information exchange and the connection to other participants (Jahn & Kunz, 2012; Fontaine et al., 2010; Raacke and Bonds-Raacke 2008). Motivational drivers, including various forms of interactions with other individuals or blogging activities, can lead to customer engagement behaviors beyond transactions (Van Doorn et al., 2010). Customer Engagement, in turn, may result in different relational consequences including trust (Brodie et al., 2011). Since interacting with others and blogging in a moderated framework is managed by the company, we can expect that trust towards the company is affected by trust toward the blog (Brodie et al., 2013; Van Doorn et al., 2010) that, in turn, determines the intention to purchase the service.

Based on this we propose the following sequential mediation path from perceived value of participating to a MC's web community to behavioral intentions, through the formation of trust:



**Figure 1: The Conceptual Model**

Literature on the online behavior and on the referral processes has emphasized a possible effect of personal characteristics on the relationship from motivation to behavior (e.g. Hayes et al., 2016). In particular, the individual's disposition to gather and share product-related information (Chu & Kim, 2011) may have an effect on the relationship between the web platform and the individual on subsequent behaviors. Consistently, we hypothesize a moderation effect of opinion giving and opinion seeking propensity (Hayes et al., 2016; Chu & Kim, 2011) on the mediation paths of Figure 1.

### 3. Empirical Analyses

*Method:* We administered an on-line questionnaire to the users of the MC's blog. The MC collaborated to the project by inserting a link to the questionnaire on the its website in the section introducing the blog. Users freely clicking on the link were redirected to the questionnaire. After reading the presentation of the study, respondents were administered a set of scales to measure the key constructs for this research: Value (Jahn & Kunz, 2012), Referral Sharing Motivation (Hayes et al., 2016), Customer Engagement (Vivek et al., 2012), Blog Trust and Company Trust (Jain et al., 2013), Opinion Seeking Propensity and Opinion Giving Propensity (Hayes et al., 2016) and behavioral intention. Namely, behavioral intention is

measured as a two items measuring the intention to purchase a medical service and the likelihood to do it. As target medical services we selected oxygen therapy and physiotherapy.

*Results:* data collection resulted in 169 observations (45.6% female; average age 45.6 years). Cronbach's alphas of measured constructs support the reliability of scales: Referral Sharing Motivation ( $\alpha = .88$ ), Customer Engagement ( $\alpha = .89$ ), Blog Trust ( $\alpha = .94$ ) and Company Trust ( $\alpha = .97$ ), Opinion Seeking Propensity ( $\alpha = .75$ ) and Opinion Giving Propensity ( $\alpha = .78$ ), Value ( $\alpha = .93$ ), intention to purchase oxygen therapy ( $\alpha = .74$ ) and intention to purchase physiotherapy ( $\alpha = .90$ ).

To test the hypothesized sequence in Figure 1, we conducted a sequential mediation analysis with four mediators (Model 6, Hayes, 2013) to evaluate the causal sequence Value  $\rightarrow$  Referral Sharing Motivation  $\rightarrow$  Customer Engagement  $\rightarrow$  Blog Trust  $\rightarrow$  Company Trust  $\rightarrow$  Intention to Purchase. As the Intention to Purchase we took overall intention defined as the join scale of the two main services of the medical center ( $\alpha = .87$ ).

Results show that the sequential path of Figure 1 yields a full mediation pattern (direct effect = .1069,  $p = .2551$ , 95% CI: -.0779 to .2917; indirect effect = .2438,  $p = .0044$ , 95% CI: .0769 to .4108). We estimated mediation models for each sub-model of the sequence of Figure 1. However, no sub-model resulted with a statistical significance (95% CI). In the partial model of Company Trust ( $p(F=45.305, df=4, 164)=0$ ), Blog Trust has a significant impact (effect: .6113,  $p(t=8.53)=0$ ) and in the partial model of Intention to Purchase Company Trust ( $p(F=5.091, df=5, 163)=.0002$ ) has a significant impact (effect: .1859,  $p(t=1.66)=.098$ ).

To test the hypothesized moderation effect of Opinion Giving Propensity and Opinion Seeking Propensity we estimated a sequential moderated mediation analysis (Model 9, Hayes, 2013) on the same causal sequence of Figure 1 finding no moderation effect.

#### **4. General Discussion**

Managing the relationship between medical service providers and users has become a crucial factor for private healthcare centres. The increasingly number of the private initiatives in supporting or substituting public supply of medical services calls for the better understanding how the service users makes their choice. New technologies allow medical centres the possibility to design a web-community in which individuals interact and exchange information with other peer and with professionals.

In this paper, we empirically support that participation to a MC's blog is motivated by different benefits expected and results in a customer engagement that, in turn, develops into trust toward the web platform. Importantly, blog trust translates into MC's trust determining, in the end, intentions to choose the medical centre. This causal sequence is articulated in a fully mediated relationship from the value expected by blog participation to behavioural intentions showing that the MC should manage the interactions within the web platform and the customers' engagement as determinants of a relevant form of attachment to the company, namely trust. We also find that a personal disposition toward seeking or providing opinions on the web does not affect this relationship.

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