Co-creation at Mobile Tourism Ecosystem

Empowered and Challenged Travelers

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Abstract

The article explores what guides engagement in co-creating value, via mobile applications, at the tourism environment. The study followed the interpretive approach by applying in-depth phenomenological interviews. Two IT managers from a leading e-commerce company in Latin America were interviewed for two hours each. Afterwards, seven users of tourism mobile apps, approached through a virtual community for family trips with nearly 50.000 participants, were also interviewed. The interviews, conducted via Skype (recorded and later transcribed), began with *vol d'oiseau* style questions, where participants were asked to recall the usage of mobile apps during their last trip. Further interviews did not aggregate new information. Three themes emerged from the analysis: content sharing, willingness to co-create and the variation of co-creation behavior patterns, according to contexts. The results indicate that the ubiquity provided by mobile apps enable the active engagement required to co-creation. Engagement derives from a search for pleasure, for reputation or for reciprocation. It seems that the foundation for C2C (consumer-to-consumer) co-creation in tourism via mobile is information sharing, involving features as reasoned behavior, emotional response, social influence/indirect reciprocity and all the lays behind sharing. Co-creation of value seems to happen more easily within companies' platforms that actively engage consumers via rewards and geo-localization. Ultimately, co-creation led to redesign of the experience, especially when consumers were searching for more authentic experiences.

Keywords: co-creation of value, willingness to co-create, sharing, tourism.

Introduction

Mobile technologies are increasingly commonplace in business, being the global trend that mobile will take over the majority of web browsing. The growing access to smartphone apps contributes towards co-creation activities that enhance the innovation process (Sarmah, Kamboj & Rahman, 2017). There is much to be explored regarding the meanings and reasons behind the consumer engagement in co-creation via mobile apps. Heidenreich and Handrich (2015) suggested including willingness to co-create (WCC) in future researches in order to analyze technology-based services (TBS) adoption behavior. Literature has struggled to explain why consumers that evaluated a TBS positively yet may choose not to adopt it (Heidenreich & Handrich, 2015). "The psychological processes that underlie persuasion-decision discrepancies in TBS adoption are more complex and additional factors besides WCC have to be considered to further enhance the explanatory power" (Heidenreich & Handrich, 2015, p.64).

Morosan and DeFranco (2016a) point to a gap of empirical research in co-creation. Sarmah, Kamboj and Rahman (2017) observe that further studies are necessary to explain how m-commerce facilitates co-creative service innovation. This study intends to identify the meanings that guide the use of mobile applications in the process of co-creation of value, from the perspective of tourism service users.

The customer co-creation concept

It is commonly accepted that customer co-creation can be described as the joint creation of value, by the company and the customers, occurring during service delivery and consumption (Grönroos & Voima, 2013). Yet, much also has been discussed about its real scope and many other terms, like collaboration, co-option and co-production, are used to describe the interaction between costumers and service providers.

Deeper research on the literature on value co-creation reveals the work of Vargo and Lusch (2016) on the Service-Dominant Logic (S-D Logic) - opposed to the Good-Dominant Logic - as a broader and more comprehensive way to understand the interactive dynamics of the market and the consumers behavior as we see today. As illustrated by Ostrom et al. (2015, p.10): "Value co-creation in online environments has moved from a bilateral supplier – customer service – value co-creation to a multi-actor perspective". The role of institutional arrangements and the resources integration described by S-D Logic are used here to capture the sense of the co-creation via mobile applications.

The first characteristic drawn is that there is no beginning or uniquely identified motivator to the creation of value. The model presents the notion that integrated resources and exchanged service are enabled and constrained by institutions or institutional arrangements, established in multiple service ecosystem formed by different actors. The use of service is intentional, because in the end what is delivered to consumers is not a product but a service representing the knowledge or the skills of a company or other person (Vargo & Lusch, 2016). The multiple service ecosystems perspective is used to capture the plurality of scope of consumer interaction provided by the Web 2.0 - it is no longer valid to look at consumers as part of one closed community or social group or even a tribe.

Even if the interaction is a strong reality, no absolute uniformity is expected. S-D logic states that value is determined by the beneficiary, meaning that people capture their particularly required value inoculated, enriched or influenced by others. The interaction of clients with others usually happens via recommendation systems and e-WOM. Since value creation focus on value as perceived by customers (Ostrom et al., 2015), the perceptions customers share with other customers affect their service experience. The socialness of the online environments allow for peer-to-peer sharing (Belk, 2014).

While involving in co-creation activities, customers do a cost–benefit analysis and compare monetary and non-monetary costs and benefits that they may incur during the co-creation process (Heidenreich & Handrich, 2015). The incentive to co-creation can come in the form of monetary (cash discounts) or non-monetary (recognition) rewards (Sarmah, Kamboj & Rahman, 2017).

The costs in co-creation involve effort and information provision (Heidenreich & Handrich, 2015). Clients calculate the trade-off between benefits and costs. To engage in co-creation, the benefits of customization should be higher than the cost of effort and

information provision. Due to its ubiquitous character, mobile apps seem to help reducing the costs involved, such as time and effort, swinging the balance to a positive sum (Sarmah, Rahman, & Kamboj, 2017).

The co-creation in the tourism industry

Consumers are willing to co-create their travel arrangements when they closely collaborate to create a unique travel experience (Sarmah, Rahman & Kamboj, 2017). Co-creation in the tourism industry is closely related to an active involvement in the experience design process. Apps can be used to reserve tickets, compare prices and book flights and accommodation, allowing for rearrangement of the experience. A large number of e-travel companies use the mobile technology to increase tourists' convenience (Morosan & DeFranco, 2016b), using apps to encourage the co-creation of services (Sarmah, Kamboj & Rahman, 2017).

Social influence is tightly connected with the concept of C2C co-creation, since social interaction of consumers is one of the bases for co-creation (Zwass, 2010). One important motivation for sharing content online is social acceptance (Chen, 2017). Fairly accepted is the principle of identification to describe social influence, or that individuals with certain traits, such as high-status, attractiveness and similarity, should be more influential than others. Shalev and Morowitz (2012) went further and stated that comparison-driven self-evaluation and restoration foster social influence. This shared online communication (e-WOM) exerts great influence on consumption decisions (Chen, 2017), affecting the decision of places to be visited, where to stay, where to eat. The notion of Web 2.0 is based on sharing and the nature of sharing is based on feelings of community and expectations of reciprocity (Belk, 2014). Due to the technologies advances, today's customers have the possibility to actively engage in the consumption process, whenever and wherever they like (Heidenreich & Handrich, 2015), with no temporal or spatial constraints (Tang et al., 2016).

Method

In-depth phenomenological interviews were conducted in this research. For a better comprehension of the mobile scenario, the research began interviewing, for a couple of hours, two IT managers from a leading e-commerce company in Latin America. Following, seven Brazilian users of tourism mobile apps (Table 1 presents their profiles) were approached through a virtual community for family trips. The interviews via Skype (that were recorded and later transcribed) began with *vol d'oiseau* style questions, where participants were asked to recall the usage of mobile apps during their last trip. More interviews did not add further information.

Table 1. Interviewees profile

Interviewee	Gender	Status	Children	Occupation	Age
E1	woman	Married	none	art historian	40-50.
E2	man	Married	2	retired engineer	50-60.
E3	woman	Married	1	doctor	30-40.
E4	woman	Married	1	physician	30-40.
E5	woman	Married	1	business consultant	30-40.
E6	woman	Married	1	former secretary	N/A.
E7	man	Single	none	woodworker	20-30.

Findings

The following themes emerged:

Content sharing

Content is shared in the form of opinions, comments, impressions, reviews, photos, videos, recommendations. It seems to be the bottom line of the C2C co-creation of value via mobile.

I go and say, oh, this Airbnb dude was so cute, so nice, lets help his popularity, let me write it down. Gratefulness, that is the feeling when you are very welcomed. I usually do it afterwards, you know when you start looking at the pictures? (…) (E3)

But what is the foundation for sharing via mobile apps? Trust, caring, fellowship and need to reciprocate are among some constructs regarding the C2C co-creation process. "To specify only utilitarian motives in sharing or to diagnose consumer exploitation and marketer co-optation in consumer cocreation of content is to try to apply the criteria of marketplace exchange to the wholly different system of sharing" (Belk, 2014, p. 18).

There seems to be an important difference in what people are willing to share. It is more usual to share information when you are upset with the service, but co-creation involves sharing the good moments, when you are pleased:

(....) I think the person is much more motivated to write when she is upset about something, then to get the computer and write when she is pleased. When she is happy, she is enjoying the trip, she will not stop to go there and make a compliment (laughs). So, I go more focused in the compliments than in complaints because I think complaints are like, you are pissed off, I am going to crush this place, than you write. (E3)

Sharing information involves non-monetary costs. However, other costs emerged in the interviews. Sharing consumes time, one of the most valuable and scarce resources in a trip, and personal involvement.

So, I think it's a bit of a lack of time even though I'm aware that it's important for the next travelers to have a sincere opinion like that. And it's something I know that I fail in that respect. Since I benefit so much from the opinion of others, I am aware that I should give mine too, but I end up not changing my routine and end up not doing. (E5).

Despite the notion that the value is embedded in the information disclosed, the disposal of time and the commitment required to co-create may be very costly to consumers. That leads to the willingness to co-create.

Willingness to co-create

Co-creation involves the consumers' active engagement (Heidenreich & Handrich, 2015). Mobile apps have enabled such engagement. The ubiquity provided by the mobile experience somehow reduces the costs involved in the co-creation process, since it removes the location and time barriers, allowing consumers to collaborate in more convenient times and locations. Yet, engaging in mobile apps for C2C co-creation requires willingness to co-create. There is also a psychological involvement regarding the consumers' willingness to co-create. People share online because it brings them pleasure, because it enhances their reputation for making up for something in a way that brings satisfaction, or because it is the right thing to do (Belk, 2014). We share to make human connections:

E2: *I reported this fact: the car was good, the service at the counter was quick to get and to return, but there was a problem (with the car fluid). The thing is, if I read this evaluation in the future, I would get at the rental car company reception and ask the question: Does it have enough fluid? Because in my experience I wasted too much time on it.*

Interviewer*: And how do you feel about giving that contribution?*

E2: *Look, I feel good. I feel even better when, for example, at TripAdvisor it comes a "useful" vote there, comes a "little thumbs up". Ah, useful vote! This review was useful to someone!* Or, as another interviewee put it: *(...) since I have been helped, I am going to help someone. (E7)*

As stated by the IT managers, it appears that people will do something frequently once it arises positive emotions, leading us to wonder: what generates this WCC? As Belk (2014, p.14) puts it: "perhaps it is your own sense of gratitude in finding others' helpful contributions online that has led you to make your own offerings when you can, even though there are no obligations of reciprocity and you may not know those with whom you share".

I like to share my experience because I feel like… for getting info from others, it goes almost automatically, you know, come on, I will go there and write down that I liked it and what I did not like about it, so as to prevent people from getting into nasty situations. It is a form of acknowledgment, you know (laughs). (E3)

The interviews also surfaced a more compromised behavior, illustrating the kind of information seen as specifically useful.

E2: *Until today I see this, most of the comments are very superficial, you know. And I go there and write this: I went to such a restaurant. It has a door step, which makes it (the access) difficult to wheelchair users. There's no parking nearby. So, I suggest: Oh, there's a parking lot in a radius like this, so and so. I suggest making a reservation. And then I talk about the dish that I ate, or that we ate, but in a specific way. I do not say just that the food is great. Not just "great" ... I say I've tried the Porto style Cod and it is big. Two people can enjoy just one dish. The price I paid was around X dollars. The tables in the restaurant are very close to each other, so if you want a certain privacy, the conversation from the other table will bother you and yours will also bother them. Then I start talking those kinds of things. Things that would perhaps interest a person wanting to plan (the trip) and would say: oh, I don't want that. I want a cozy place... So, I start writing about these things that might actually influence someone who wants to go to that place.*

Interviewer*: So, you do what you want them to do for you?*

E2: *Yes*

However, in other cases even when a sense of indirect reciprocity is present, it may not be sufficient to encourage co-creation.

E5: *And we searched for amusement parks and found one near the Black Forest, in Germany, called Europa Park. It's funny that we did not hear good things about this park, I mean, it's not that you did not hear good things, it's just that we hardly heard of this park and when we came in we felt so sorry, we're sorry because we should have stayed more nights there, we spent a whole day in the park and did not have time to know everything. And that, in my opinion, was much cooler than if I had gone to Euro Disney, for example. (...)*

Interviewer*: Did you feel like spreading this info?*

E5: *I am lazy. I am being very sincere. I know I am wrong because I have stayed several times in Airbnb, I really liked the apartment, but I am the type of person that ends up not doing any advertisement, not testifying later on Airbnb or on TripAdvisor about my experience. Yeah, what I do is personal word of mouth, you know guys? If I sit at a table with friends… (…) But I, virtually, I do not do this, I know I should do but I'm not that person. (…) What makes me lazy to write on websites is the formality you know, sometimes you need to use lots of information, you end up getting lazy and dropping it.*

The last mention brings back the subject of personal involvement to inhibit willingness to co-create and some market players already deal with this issue, offering a concrete reward to stimulate users' action:

E6: *Google pays us to make the evaluation. (..) It asks: did you stay in such place? Than it makes a series of questions and gives credit in Google Play.* (...) *There's another application which encourages. "Oh, I see you've been here, do you want to give your opinion on this place?" So, as it comes with an ACTIVE thing, it just makes it easier, it's more practical than going to TripAdvisor, logging in, looking for the name of the hotel, look, to put the evaluation there, which was what I did until the year last (2016).*

Interviewer*: And you usually do these evaluations?*

E6: *Used to.*

Interviewer*: In Google, do you think that you make yourself more available do to this easiness?*

E6: *In fact, Google itself encourages me. I do not need to remember, it says, ah, you passed by here. Or even more, as it did in October when I stayed in three lodges and for each of the three lodges, they called me somehow on the mobile, those little messages ... and then they gave me USD 1.00 credit for each evaluation on Google Play.*

Willingness to co-create is a factor of the trade-off between benefits and costs involved. Besides the usual time and effort cost, another barrier emerged: physical security. Security has long been an issue related to online applications (Tang et al., 2016). However, the physical security as mentioned, referring to the risk of having the smartphone stolen, may be a true concern in some parts of the world.

I use my mobile phone for everything. As we were to speak, I downloaded Skype, that I had deleted to add more storage space (...). In Rio de Janeiro, I only use mobile if I am in the car, or in a closed place, right? That is limiting. I use apps much less in Brazil for this reason. Sometimes I catch a cab instead of Uber because I couldn't use my mobile phone on the street (...). I want to look up for a restaurant with a better cost benefit relationship, I am going to look it up in TripAdvisor, but no… I am not gonna spend five minutes looking at my cell phone on the street… so you end up entering the first restaurant you see 'cause it is safer. (E1)

Customers characteristics play an important role regarding the involvement in co-creation of services (Sarmah, Kamboj & Rahman, 2017). Consumers high on technological innovativeness perceive the effort of information provision as less negative. Therefore, perceived costs of co-creation are reduced while perceived benefits are enhanced, leading to a high willingness to co-create (Heidenreich & Handrich, 2015). Indeed, consumers that are more prone to technology, who were the focus of this study, perceive the benefits as

exceeding the costs of co-creation for travel experiences. The users seem to enjoy the benefits by far for meeting people (reaching to new connections) or venturing new and original experiences (going to non-listed places and getting away from the "touristy" stuff).

E1: *In the United States we can use Uber Pool, right? Sensational experience! Met people from all over the world using Uber Pool, I mean, so good.*

Interviewer: *Tell us more about this meeting you got through the app…*

E1: *It was amazing! I was digging an opportunity to go there. Then I said in the app that I was a Museum professional in Brazil and wanted to exchange experiences. Someone replied: oh, I work there, how can I help you? And we set up the meeting.*

Co-creation of value seems to happen more easily within environments offered by companies that actively engage consumers in co-creation via rewards and geo-localization (i.e., Google vs TripAdvisor). Google is pursuing neither the no-time nor space constraints when it invites the consumer to add a review in the moment the person is living the experience.

(...) Google has been very good regarding tips for places to go, it ends up being working even better than TripAdvisor (…) I go to Google Maps, write down the name of the hotel and it comes with all, brings people evaluations, I mean, it has everything TripAdvisor did, but easier to find and with a little more… you can book a table, check the website… (E6)

The anywhere, anytime possibility allowed by mobile seems to enhance customers willingness to co-create:

(...) sometimes I crossed, like a hotel that I passed nearby, then Google asks: "you passed by here", sometimes they are places that I crossed, that I just went through, if I say no, Google gives me around USD 0.30, just because I answered the question. Or in stores such as Americanas, or Extra, I imagine they hire Google to ask that kind of question. As I ended up giving them access to them to know where I am, which was half inadvertently, somedays somethings came up for me, I was clicking and I allowed it. At first, I did not even like it, it is like, Google knows everything about my life, where I work, where I go, but there isn't much way out of it nowadays, right? (E6)

Despite all the benefits here mentioned, the incentives to co-creation in tourism via mobile geolocation bring up the privacy boundary issues. Google recommendation system, for instance, is in part based in information disclosed and shared by its customers.

Co-creation behavior patterns

Specifically, regarding the tourism ecosystems, some different axes on behavior patterns shift were identified. They are discussed as follows:

C2C co-creation leading to redesign of the experience: The use of mobile apps grants flexibility in designing the product experience. That is one of the most recurrent benefits mentioned by the interviewees.

(…) sometimes the TripAdvisor also sends me a question saying: Look, there's a question for you from someone or it tells me, for example, on this local you are among the 10% most read reviewers. Gee, you know, that when I'm completely thrilled of joy. I'm helping someone! It's the funniest thing in the world. It's just like being a local Google guide, which I am. And people ask: and they (people from Google) make info demands? they ask for a photo, they send information from the site or asks for a photo of the dish. And I send the

picture. And then other people ask me, do you work for free for Google? I work and I think it's great. (E2)

The possibility of real-time location-based offerings is a benefit of mobile services also mentioned by interviewees:

(...) I went on Google, put the location of my office and then asked to stay in a hotel close by, so as not to spend with transportation. Worked. Then I went and put "places to eat close to me" and it showed a lot of options. I chose "people that live close to here usually go to this place". That's the one I chose. (E6)

I remember once that we went to El Calafate and we did a tracking of the glaciers and I had already seen on the website that at the end of the tour there was an ice scotch they took of the glacier. So, this, I went waiting for that, you understand? I think these loads of information end up taking some of the surprise from us, ooh that's cool. (E5).

Interviewer: *What has mobile accessibility brought to your travels? Thinking about before the accessibility of mobile and now?*

E2: *The planning changes at the last minute. Or sometimes you arrive at a location and there is a big line. You enter the online site, make the reservation for that time and you jump the queue. I'd say that's the most amazing thing. Another one is when sometimes you can't even get the reservation or get in the line a certain place. You submit a question on TripAdvisor and it replies: near you now there is something like... Then you adjust your planning. Mobile has given great mobility and it anticipates a lot of information through business applications.*

Level of connection and impact in co-creation consideration: Interviewees highlighted the fact that they consider the information shared by friends more reliable than that shared by strangers, for they can correlate information shared and the profile of the provider, therefore adjusting the level of adequacy for their trip.

I think friends are more important (than reviews), because I know them, I know who is picky, this sort of thing (laughs). When you are a friend, you know, oh, "fulana"(so-and-so) only goes to this sort of trip, big resorts like, the other is more like my profile, likes museums, to hit the road, to meet places like this and oh, the other only likes restaurants. So, I filter my friends, and it is easier to filter because you know the person profile… oh, I will get restaurant tips from "beltrano"(so-and-so), tips for places to stay from "siclano"(so-and-so). And oh, this one has money, cannot follow his tips (laughs), five stars and such and such, not my profile. I think it is easier to filter. (E3)

As the IT managers pointed out, the user wants to feel what the other felt. What catches the attention is the emotion that the reported experience arises. The interviewees took very seriously the information provided by other users regarding travel companies.

Convenience (Google Places model) is such a dear value to the modern consumer that it can be a stronger driver of motivation than the need to reciprocate (TripAdvisor model).

The funny thing is how perspective changes after you find something else. After I found out about Google and realized how much easier it was there, I started abandoning the other platforms. (E6)

Other forms of content, such as photos and videos, are also important both from players like Google, when asking their local guides to publish dishes or locations photos.

Travel context and differences in usage behavior: When the trip involves people with special needs there is a difference in the patterns of usage for the same consumer.

"With a son we travel with everything pre-arranged, all booked, all printed. But before him we would go and see there which hotel was available, we changed our minds during the trip, we had booked a place and then we found out that there was a cute little town in the French countryside, oh, screw the reservation, I will go… it was more flexible). (E3)

The travel context also influences the search for professional vs non-professional collaboration**.** When customers are willing to diminish insecurities, they seem to recur to professional services; if the destination is perceived as a less secure place, professional aid is mostly appreciated. Cases where richer and more technical info are required, where the accuracy of details is important and where knowledge from experienced sources are required, tend to demand more than just a simple review or a blog post.

I read (blogs), but I don't think I have the patience to, I mean, I don't have the necessary concentration, the focus… plus the obligation… I think that if I am obliged to do so, I will not think of anything, got it? (…) I like posts because I think they are more personal experiences but there are a lot of complaints, so I end up using a little bit of each… (E3)

Interviewees referred to professional collaboration when they searched for more reliable experiences, and for C2C co-creation when they aimed at more authentic experiences. User reviews (non-professional information sharing) provide extra important details regarding specific customer needs. Reviews disclose information that service providers may not be willing to shine a light on.

But then I look at stuff like if there is structure for children or not, if it is far from the attractions, I look up for those that say, the inn owner was lovely, she got us an amazing place, she got a reservation, she gave us tips to say if things were nice and cool (…) (E3)

We read a lot of things from TripAdvisor, even regarding the company we used to book. Many blogs about travelling with kids, to better understand what these families did, simple tips, such as what to bring, such as towel, cotton diaper, because they dry out much faster than regular towels (E5)

As the IT managers posed, the information gains importance according to the context where it is inserted. Thus, it is not a matter of the info being simple or complex, but of being suited to the context. One question then arises: which mobile apps enable the engagement in C2C co-creation in the tourism sector?

E1: *When I go to a place, I download all the apps about it and many I end up not using because they are complicated, or they are too heavy, so I end up not using them.*

Interviewer: *What is a good travel app for you?*

E1: *(...) I am not interested in knowing about the wonderful tourism locations, everybody knows such things. I want people to tell if I can walk in such street, if it is safe. If you are a woman and travel alone, you worry about security. (...) most of the tourism apps I download disappoint me. (...) they are non-professional, there are so many mistakes.*

To write a review, the person chooses a channel. The choice is related to the engagement with the brand/company, as posed by the IT managers. Despite the intense launch of new tourism apps, only a few were mentioned as regularly used: TripAdvisor, Booking, Airbnb, Google Maps, Meetup, OpenTable, Skyscanner, Trivago. All interviewees mentioned their concern to select the best apps due to storage space in their smartphone. In the bits and bytes era, the competition is not only for the customer's attention and recall, or for a place in their hearts and minds, but also for a place in their smartphone memory!

Discussion and final considerations

The predicated consumer empowerment via internet (Vargo & Lusch, 2016; Zwass, 2010) seems to ascend to a new level at the mobile involving the tourism ecosystems thanks to the addition of the ubiquity and the geo-localization.

Under the optics of cocreation and the Service-Dominant Logic (Vargo & Lusch, 2016), it becomes clear the service delivery via resources integration provided by the actors, as all interviewees claimed either using or producing content. It has also been observed the influence of the context at the value creation process, clarifying that value co-creation is shaped by social forces, reproduced in social structures and can be asymmetric for the actors involved. Still at the S-D Logic narrative process, the platforms mentioned like Google Places and TripAdvisor act like the institutions and sometimes create the institutional arrangement of the tourism ecosystems. As the dynamics of the Web 2.0 era demand, those ecosystems are superposed by others, like the social networks, family or work environment, influencing tourism consumer behavior as predicted and also seen in some of the interviews.

The findings suggest that the foundation for C2C co-creation in tourism via mobile is information sharing. However, it goes beyond sales triggers and e-WOM, involving more challenging features such as reasoned behavior (cost-benefit analysis), emotional response, social influence/indirect reciprocity and all the lays behind sharing.

Concerning extrinsic and intrinsic motivations, the following arose: collaborative consumption, increased convenience and need to reciprocate. Financial benefits entered the game with the rewards provided by Google Places. On the negative side of the equation, as constraints and barriers, it is time costly, there is a physical security risk in some places and collaboration is not always easy, convenient and intuitive, for instance, when one needs to remember to do so.

As to the question posed by Heidenreich and Handrich (2015), convenience in use may be the key to positive evaluation followed by adoption of mobile apps, at least regarding co-creation in tourism. Active engagement based on geolocation services is one of the bases for providing such convenience in user experience (Google Places example). Indeed, a sophistication of the recommender systems seems to follow the enhancement of C2C value co-creation in tourism.

Companies should monitor the information disclosed about them, mainly in the form of online reviews. Besides monitoring, they shall encourage C2C co-creation via information sharing, as an opportunity to enhance their online reputation. Also important for managers is to assist the development of mobile applications and to provide insights for mobile marketing strategies, in a way to engage and interact with customers, so that they be willing to co-create using mobile apps. Clients' involvement is primordial for co-creative innovation activities

using smartphone apps, therefore marketers must find ways to motivate them through rewards and incentives. On the other hand, the unwillingness to co-create may lead to failure in the service contexts. Companies that rely heavily in C2C Willingness to Co-create, such as TripAdvisor or Booking.com, need to come up with incentive strategies to overcome barriers posed, such as consumer laziness to cooperate.

The impact of the user experience (UX) in the willingness to co-create via mobile apps was not addressed in this study and remains as an important issue for a more complete portrait of the consumer experience. Literature argues that offering a joyful experience might be an effective approach (Heidenreich & Handrich, 2015; Tang et al., 2016). However, as this matter did not come to light during the interviews, we recommend it to be tackled in future research. Another research angle is to approach consumers that are not keen to engage in structured information sharing, or other forms of co-creation via mobile apps, trying to understand the motivations and barriers that lay behind the outsiders. On the other hand, young individuals are vigorously publishing user experience via photos and videos. This behavior may actually lead to unintended co-creation, which presents another research front that would possibly involve issues like relationship building and narcissistic behavior.

Co-creation in the company to customer interaction or in the employee to customer interaction, via mobile apps, could also be addressed. With the fast evolvement of mobile technologies and the growing consumer empowerment, co-creation and mobile apps is a fruitful research avenue for the following years.

Mobile apps enable a different travel experience, more flexible, more customized and more adjusted to consumer preferences. The ubiquitous character of mobile turned consumers into live content providers. Add the fact that the entertaining nature of trips, with all the videos, pictures and experiences involved, are a handful of content, and you have a boosting combination. Marketers eager for customer generated content since it adds more credibility to the service experience and that is exactly what C2C co-creation via mobile apps provide.

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