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Title: Is this the beginning of the end for retail websites? A professional perspective.

Abstract:

This paper expects to understand professionals' opinion concerning the impact of the increasing use of Social Media (SM) and commercial Mobile Applications (MA) instead of retail websites in their online strategy. Unstructured interviews with Internet professionals were applied on the LinkedIn professional SM platform, and one hundred and twenty-seven professionals provided their perspective. Data were analyzed using a Text Mining approach, and the outcome revealed professionals' resistance to set SM in the center of the online strategy and highlighted the preference of users to use search engines that, in turn, will lead them to a retail website.

Keywords: retail website; social media; commercial mobile application; consumer behavior; text mining.

1. Introduction

The Internet is a place balanced by the variety of intentions of those who make use of it, changing according to users' desires and trends, transforming it into a living organism. A new consumer behavioral pattern has been observed, influenced by the increasing use of SM and MA. Ninety percent of mobile time is spent on MA and ten percent browsing (Alliance, 2017). Forty percent of the global population has an account on a SM platform, where Facebook alone corresponds to over 2.4 billion monthly active users (Statista, 2019a), revealing a new trend and the fact that websites are no longer the place where most Internet experience happens (Ramos et al., 2019). Companies have acknowledged

these changes that are taking place over the Internet and took measures to follow consumer interests (Aral et al., 2013). Some companies have set SM at the center of their online strategy. These companies understood this behavioral change and put all their efforts to be where consumers are and meet their needs and interests, setting their website as a secondary place or eliminating from the start the possibility of working with one (see: WeChat, obsessee.com or Uber). However, others continue to set their retail website as the center of their online strategy.

This study aims to understand the professionals' point of view towards the use of retail websites, SM and commercial MA in their online strategy, and what is influencing the increasing use of SM and commercial MA instead of retail websites. To achieve this goal, 127 Internet professionals were interviewed through the LinkedIn SM platform, which provided the data for this paper. Data were analyzed using a Text Mining (TM) approach for a comprehensive assessment and search for hidden information and patterns (Moro et al., 2015). Through the created knowledge, this paper intends to unveil the positioning of professionals toward the identified behavioral change so that academia and other Internet professionals can understand what is influencing the users' behavioral change that is taking place, and that is shaping the current use of the Internet.

2. Framework

2.1. The role of Retail Website, SM and commercial MA

A retail website can be used for business communication, perform online transactions, and as a potential client contact. It can be defined as the sum of web pages under an Internet domain that is used to communicate with stakeholders and conduct business transactions (Aksakallı, 2012), where the manager has the power to control the platform

and the content. Worldwide, there are 1,8 billion websites (Stats, 2018), that have the potential of changing the nature of the business itself by providing access and information to any customer 24 hours/day. A retail website facilitates the access to markets previously considered out of reach, it is a place where visitors find themselves comfortable to interact with the company, and it is usually powerful for online sales. The better the company website, the higher are the chances of success in the world wide web (Hernández et al., 2009).

The rapid dispersion of SM is leading to new opportunities for organizations to communicate and connect with customers and redefine commerce leading from a product-oriented environment to a social and customer-centered one (Fernandes et al., 2016). The participation of users is the core aspect that defines SM (Wehn and Evers, 2015). It influences the frequency of customer visits and is empowered when there are high levels of activity on the SM page (Hong et al., 2014). Interaction among users is allowed through the features of communication and sharing services, while the creation of communities is the consequence of the interaction between users (Laroche et al., 2012). The visualization of the characteristics such as photos, interests, dating preferences, friends, and networks by other users increases engagement (Halpern and Gibbs, 2013), and several benefits can be withdrawn from the use of SM (Solem and Pedersen, 2016). Facing these characteristics, SM is an innovative tool that surpasses and exceeds the role of the traditional website (Nah and Saxton, 2013).

A commercial MA is a downloadable smartphone software, written in a native language (Franko and Tirrell, 2012), developed mainly for an organization. It takes the best of the natural characteristics of the smartphone operating system and equipment (GPS, camera, geolocation, etc.), with the possibility to integrate wearables, allowing to add attributes such as 3D or augmented reality. Moreover, the commercial MA is downloaded to the

smartphone, which translates to reserve its own space in the device, permitting better access and independence of Internet connection. The possibility of being synchronized with SM improves content diffusion and brand exposure.

Organizations have been taking advantage of such platforms to have an online presence and develop activities to turn businesses sustainable.

2.2.Organizational activities supported by Retail Website, SM and commercial MA

A retail website is the online front entrance of a company that, if properly designed and conducted by its manager, can decrease operating costs and increase competitive advantage, representing a place that strengthens the bonds with suppliers, retailers, and distributors. For these reasons, the main objective of a company by creating a retail website is to improve organizational operations, reduce operational costs, and create benefits through the enhancement of the customer service quality (Hung et al., 2014).

A retail website plays a crucial role by promoting and developing information exchange (e.g., price-related information, pictures, and online customer service), creating and stimulating relationships, business transaction guidance, marketing purposes, promote brand image, and supporting various kinds of electronic business transactions. Therefore, improving the interactivity of the website and managing the information adequately is decisive.

Although a retail website is used mainly to shop, it also permits to achieve strategic business objectives and increases competitive advantage (Mathur, 2018). Retail websites are great support for most marketing activities and considered to be one of the great motivations for a company to launch a retail website (Hung et al., 2012).

Given the widespread dissemination of SM, any organization may adopt SM to take advantage of the opportunities that emerge using such technology (Dwivedi et al., 2018). Taking the example of Facebook, business pages are free, offer a set of tools for data analysis, are optimized for the Internet, and are as easy to set up as a simple user profile page. The online investment from companies has been increasing over the years, to establish relationships and interact with their targets (de Vries et al., 2012). SM can be an efficient marketing tool since customers tend to trust more on comments from other users than traditional marketing strategies (Dutta and Bhat, 2016). The use of SM for marketing purposes enhances brand loyalty, which in turn leads to a customer higher level of identification with the brand (Pham and Gammoh, 2015), and increases engagement between the two parties (Yoshida et al., 2014). The collection of users' comments and engagement through SM can even lead to changes in a company strategy, services or products, promotions, prices, communication channels, and predict market trends (Schreiner et al., 2019).

The determinants that influence organizations to adopt SM are the existence of competitive pressures, to gain competitive advantages and the relevance given by top managers (Martins et al., 2016). In small businesses, the factors that affect the adoption are the adopters SM perception and personal characteristics, social influence from peers and media, current business performance, and business purposes (He et al., 2017).

At a business level, assorted qualities at low cost can be associated with SM (Table 1).

Insert Table 1 about there

SM enables the existence of social commerce (Cui et al., 2018). Social commerce is an evolution of e-commerce, aiming to engage with customers through such platforms (Lin et al., 2017), and integrates B2B and B2C business models to the SM format, taking advantage of its characteristics to enhance customer participation, promote customer and business relationships, increase revenues and influence customers to shop through the social channel (Huang and Benyoucef, 2013; Lu et al., 2016).

From a technological standpoint, MA contributes significantly to the way people communicate, keep informed, entertained, and consume, permitting information to flow with high efficiency, security, and accuracy (Natarajan et al., 2018). MA have attained such success that it is possible to find a MA for every moment of our lives (Xu, Frey, et al., 2016).

Its technological improvement has created new market segments and business models, having Uber as the top example, making it possible for companies to approach their customers anytime and anywhere, exceeding the role of websites on sales (He and Liu, 2017). In 2020, revenues via app stores and in-app advertising are expected to generate 188.9 billion U.S. dollars (Statista, 2017).

However, the aim of a company to develop a commercial MA is varied (Table 2).

Insert Table 2 about here

A commercial MA is designed to collect information concerning the user behavior, such as access schedules, real-time location, preferences, recommendations or comments, and, with this knowledge, it is possible to develop specific campaigns for each user through push-notifications, increasing sales results (Jung et al., 2018).

Given the increasing use and widespread dissemination of SM and MA (Moro et al., 2018; Rita et al., 2018), and a set of characteristics that surpass the value of a retail website (He and Liu, 2017; Nah and Saxton, 2013), Internet professionals are investing more in SM and MA to be close to their target audience. Based on this, the following proposition is raised:

H1: Internet professionals are setting SM and MA in the center of the online business strategy.

Consequently, users are changing their behavior when deciding to access the Internet. Others' opinions influence how consumers react. SM enables accessing the opinion of others in many different situations, increasing the range of opinions beyond the consumer's closed circle of friends and family (Calefato et al., 2015). Ratings and reviews enable to access extra information about products or services, helping in the consumer decision, thus minimizing the impact of choice (Yu et al., 2018). A commercial MA is perceived as valuable for consumers to purchase and to access information (He and Wang, 2016; Saarijärvi et al., 2014).

A multi-dimensional construct constituted by system quality, information quality, and service quality influence the use of a SM or MA, influencing the intention to use (Park et al., 2018). System quality reflects the overall performance, for instance, speed, ease of use, and navigation (Hernández et al., 2009). Information quality refers to the accuracy, relevance, and up-to-date of information (Tafesse and Wien, 2018). Service quality focuses on the consumers judgment of the quality delivered by the SM or MA, such as reliability, personalization, innovation or feedback (Blut et al., 2015; Huang and Benyoucef, 2013).

Other characteristics as essential drivers for technology use are the hedonic and utilitarian systems. Utilitarian is concerned with function, goal-directed, and performance-based, while hedonic is related to entertainment, enjoyment, and fun (Wagner et al., 2014).

Accordingly, the following proposition is proposed:

H2: From the professional's perspective, the Internet user behavior change is influenced by the system quality, information quality, and service quality offered by SM and Commercial MA.

2.3. Text Mining and Marketing

Unstructured texts, such as emails, full-text documents, or interviews, contain massive amounts of information. The task of retrieving details from a large amount of textual data is considered to be extremely demanding for humans (Patel and Soni, 2012). The extraction of information from an unstructured text can be conducted by using TM which is a powerful tool to analyze unstructured documents, and is known as knowledge discovery from text, used to analyze a large portion of textual data to find hidden and pertinent information, and patterns among the data (Moro et al., 2015). It is broadly used in the marketing field for knowledge management, competitive intelligence, customer relationship management, research, among others.

A large amount of studies has used TM in unstructured texts in the marketing field. For instance, Dirsehan (2015) applied TM technique to analyze travelers' comments collected from booking.com to create knowledge to be used for competitive advantage in tourism marketing. Jing et al. (2017) used TM to scrutinize the data collected from 45 interviews to uncover the key driving factors for incentives in lean production. Kang and Park (2016) applied a TM approach to analyze expert product reviews to understand consumers'

purchasing decisions. Therefore, the use of TM to analyze unstructured text data has been widely used in the marketing setting, uncovering exciting outcomes.

3. Method

To uncover the aim of this study, a grounded theory approach was conducted to analyze the collected content (Lai and To, 2015). After setting the goal and scope, the identification of the data source, and the sample size was defined. Data collection began without the formation of a theoretical framework but generated by the observation of the Internet behavior change. The methodological steps are illustrated in Figure 1.

Insert Figure 1 about here

3.1.Data collection

LinkedIn is considered the biggest SM Platform focused on professional and business relationships, with over 546 Million users' in 200 countries (LinkedIn, 2018). It has been under the scrutiny of researchers in recent years (Caers and Castelyns, 2011; Dijck, 2013; Zide et al., 2014) and users use this platform to maintain a list of professional contacts and share their professional skills on their LinkedIn profile (Papacharissi, 2009).

LinkedIn groups (Table 3) were considered the best option to find Internet professionals', since they gather a community of specialized members from the same line of work, making them easy to find and expecting that they would be willing to discuss subjects related to their expertise. Group members discuss general themes regarding Internet

developments, such as hints, strategic plans, techniques, general questions, or digital marketing subjects.

Insert Table 3 about here

Unstructured interviews were conducted to professionals' who posted articles related to the three dimensions of this study (retail website, SM, and MA) in the comment box of each post. Internet professionals are those who conduct their regular professional activities on Internet platforms (Debrah and Reid, 1998). This study considered those who conduct their daily activities on Websites, SM, and MA platforms. These are the ones with the best knowledge of such platforms, and strategic use of each inside a company. The article editor usually encourages readers to use the comment box for feedback to boost the discussion, build loyalty and grow their community. The application of unstructured interviews is considered a valid way of collecting data (Corbin and Morse, 2003) and allows to develop a keen understanding and greater breadth of the point of view of each professional (Jamshed, 2014). It does not have a determined list of questions but rather a list of topics that the researcher is interested in scrutinizing. After the characterization of the problem, following a standard procedure used in social sciences, a convenience sample was employed (Gravetter and Forzano, 2016).

Data collected from this sample was used as an input to be modeled through TM to provide the searched knowledge. The sample was based on Internet professionals with a LinkedIn profile (Table 4). This non-probabilistic sample (Zikmund and Babin, 2012) was contacted straightforwardly via the LinkedIn Professional platform to obtain their perspective towards the relevance of websites, commercial MA, and SM platforms in

their online strategy, and what are the aspects that make users choose one platform over the other.

Insert Table 4 about here

The approach begun with a contextualization, providing statistical evidence of the increasing use of SM and commercial MA instead of retail websites, and then Internet professionals were invited to reply, revealing what is the professional application of such technologies from their perspective and what do they consider to be the leading cause that motivate consumers to choose one platform over the other. According to their response, further questions were made to maintain the dialogue to get a more detailed opinion. The maintenance of a good rapport dialog was essential to keep the dialog flowing and to collect careful, pondering, and lengthy feedback.

A total of 127 Internet professionals provided their opinion towards the use of retail websites, SM, and commercial MA in an online strategy, and what is influencing the identified behavioral change. While the sample size is apparently small, it is comparable to the study by Jing et al. (2017) who also conducted text mining over a similar sized sample of interviews, extracting interesting results. The collection of extensive and detailed opinions provided a meaningful amount of data, justifying the use of TM for the analysis, in detriment of manual review, and eliminating the subjectivity associated with the last analysis (Milovic and Milovic, 2012).

3.2.Data analysis

This study used a qualitative research approach since the objective was to gain a qualitative understanding of the perspective and underlying reasons for professionals regarding users' behavior towards retail websites, SM, and commercial MA. Hence, data collection proceeded with an unstructured interview followed by non-statistical analysis. Considering the richness of obtained data, the advantages provided by TM were put to work and therefore used in content analysis.

TM approach enables analyzing large amounts of data by searching for hidden information, patterns, or trends (Ngai et al., 2009). The experiments were conducted through the "R" statistical software (<https://cran.r-project.org/>). This open-source platform provides a solution with packages for data analysis and has the contribution of a vast online community used for support (Cortez, 2014).

The data collected from the 127 Internet professionals provided the corpus for analysis. From the corpus, several steps were conducted, namely, reducing all terms into lower case, removing extra white spaces, applying the stemming technique, meaning reducing all words to their root (e.g., "customized" to "custom"), and eliminating "stopwords" (prepositions, common words, etc.). The final data set provided a total of 4,274 different terms, which aggregated, revealed a total of 20,311 terms.

Afterward, a document-term matrix (DTM) was created. DTM provides the frequency of a term and the number of opinions that appeared (Moro et al., 2015). To reduce the number of outliers, sparsity was conducted (Guerreiro and Moro, 2017).

From the package of the R software, the topic modeling package, specifically the latent Dirichlet allocation (LDA), was applied to find a set of terms that often appear together on the collected data. Topic modeling provided a structure that organizes the collected

data and permits a profound and deeper analysis, finding abstract topics that occur within the text of the interviews (Hu et al., 2014; Wang and Blei, 2011).

Having the document term matrix as input, LDA gathers data on the most relevant topics (Moro and Rita, 2018). LDA has been widely used and considered one of the most important probabilistic tools (Moro et al., 2015). Using beta (β) distribution from each term of a specific topic, it creates a structure that includes the topics and terms that define each topic (Calheiros et al., 2017). From this structure, it is possible to understand what topics professionals are giving more attention to. This structure encompasses topics, terms, and the number of interviews used as sources of a given topic. The correlation between each topic and the respective term is observed by the β distribution (Calheiros et al., 2017). For a more accurate analysis, the eight most critical terms that represent each topic are presented.

3.3.Results

For the analysis of the interviews, two levels of analysis were conducted. For the first level, the recurrence of terms is exhibited in Figure 2, and for supplementary analysis of the results, packed bubbles were created to make a visual interpretation of the results.

Insert Figure 2 about here

The data analysis of the 127 respondents provided 4,274 different terms. The aggregated frequency of the 4,274 terms corresponded to 20,311 terms. Figure 2 details the absolute frequency of the ten most pertinent terms. Through the analysis of this figure, “Website” is the most mentioned term with 582 matches, followed by “Social Media” with 517. In

third place comes “Application” term with 310 matches. The 3 top terms aggregate 6.94% of the total. The following positions are “Design” (308) and “Content” (233). From the sixth to tenth positions are “Facebook” (197), “Business” (179), “Time” (160), “Brand” (141), and “Search” (126). These last five positions correspond to 3.95% of the total.

The respective packed bubbles (Figure 3) provide an interesting visualization of the results. Clearly, “Website” and “Social Media” stand out from the others, and Facebook reveals its importance in the world of SM.

Insert Figure 3 about here

In the second level of analysis, the LDA outcome was scrutinized (Table 5). For each topic, a dominant term was revealed, and the β value shows how close the term is to the topic. A strong correlation between the topic is reflected by a β value closer to zero.

From Table 5, it is possible to visualize the outcome from the LDA analysis. It was defined as nine the number of topics, and eight terms with a higher correlation with the topic were considered for the analysis.

Insert Table 5 about here

On the first topic, “Website”, “Business”, “Google”, “Search”, “Engage”, “Information”, “Social Media”, and “Strategy” are correlated with 15 Internet professional opinions. “Website” has a low β value (3.10), and “strategy” (4.98) has high β values. These results provide evidence that the connection between the terms and the topic is strong and suggests that Internet professionals indicate that from a business perspective, the center of an online strategy is their retail website because users will continue to use Google to search for information that, in turn, will lead them to a website. A web designer opinion supports this result: *“People still search on Google, and they still trust websites that are in the organic search result.”*

For topic two, “Application” has a low β value (3.28), and the term with higher β value is “Content” (4.98). This topic reveals that professionals agree that users are increasingly accessing the Internet through SM and MA, due to the technological developments of smartphones, validated by a digital manager that stated: *“Smartphones are an answer to change in user's behavior. People are getting comfortable with their phones, so they prefer everything on the phone. (...) All thanks to technology.”* These platforms are considered to provide a service that saves time to users, and access to content is easier (Qin et al., 2017).

Analyzing topic number three, “Website” is the term of this topic with the β value (3.52) closer to the topic. From the analysis of the terms of this topic, Internet professionals understand that the success of the retail website and commercial MA in their business strategy is dependent on user-centered design and positive user experience. The opinion of a web designer stresses the result of this topic: *“As vital as responsive web design is (not adopting it is committing digital suicide), it only guarantees that your user can view your page in a mobile device”* and that there is *“switch from web design to experience design”*. Another professional highlight that if *“you run a business or deliver value just*

by taking care of the web channel is naïve at best and harmful at worst” reinforcing that “*the demand for user experience designers is still on the rise*”. User-centered design is strongly recommended (Holzinger and Errath, 2007) since it can lead to an interface that suits the consumers’ expectations and to a positive user experience.

Topic four has the highest number of professionals’ contributions (29). In this topic, “Website”, “Content” and “Channel” are the terms with the closer β values to the topic. This topic reveals that professionals have the opinion that users prefer a retail website due to the quality of content, that is found to be professional and updated, following the view of digital marketing strategist that stated that “*what matters is not how you arrange things on a page: it's the content, in terms of a specific user need*”. When the content is perceived to have quality, users usually share it through other social channels (Holliman and Rowley, 2014).

“Social Media” has the closest correlation to topic five (3.00) while “Website” (3.36) and “Business” (4.05) have higher β values. The terms revealed by this topic follow the opinion of an online business expert: “*The problem, though, with going for a ‘social only’ strategy is that you're giving up your entire user base under the control of someone or something that you don't have any power over*”. Professionals relegate SM to a secondary place for business because their retail website is owned and controlled by them and provide continuity and clarity of message. They have no control over the SM platforms, and every time the search algorithm is changed, it has an impact on their projects.

On the sixth topic, “Social Media”, “Website”, “Post” and “Customer” are the terms with the closest β values to the topic. From the analysis, it is possible to conclude that Internet professionals understand that SM are platforms to help interact quickly with customers and to help drive traffic to the retail website, adding that users on SM often look at a post and move quickly onto the next post, and in this reality, the quality of the content is what

influences the customer to open the post and engage with the company. Following this approach, a copywriter highlighted the importance of having a *“team of people to create valuable, relevant, and high-quality content consistently”*. The same professional reinforced by mentioning that the *“content on a website is used to fuel social media and other online profiles”* and *“can then be shared on social media platforms and mobile applications driving traffic to the website”*.

Analyzing topic seven, “Social Media” is the term with the lowest β value (3.24), while “Marketing” is the term with the highest β value (4.88). The top eight terms of this topic reveal that SM is a perfect tool for online communication and marketing purposes and business can take the advantage of these tools and redirect the traffic towards their retail website through the creation of quality content, that they can control and make the brand stronger and visible. An Internet company CEO affirmed that *“you should be on all the relevant social platforms, but in the end, likes don't pay the bills. Sales do. So, you need to convert them into your ecosystem so you can leverage that relationship on your terms”*.

Topic eight, with nine opinions, has “Facebook” as the term with the lowest β value, followed by “Social Media”, “Website” and “Strategy”. A technology journalist argued that *“Due to the ever-increasing use of social media attention has drifted from websites”*. The result of this topic reveals that the Internet professionals indicate that businesses should use SM to innovate their business strategy, such as using the Facebook professional page as their homepage, because users do not think about retail websites anymore and will only use them if a company does not have a commercial MA. A digital manager added that *“Apps and social media have a natural way of connecting people in a way that makes life and taking action to seem easy. Relationships are key to develop and maintain if you are looking for someone to take action. From my observation, several research touchpoints and personal engagements with businesses on their sales/marketing*

strategies, this is exactly the competitive advantage apps, and social media have over websites. Deeper and faster connections and easier actions to take to obtain a result the user needs. Websites are simply a longer process.” concluding that *“businesses must evolve and adapt to suit buyers’ preferred habits or sadly face extinction.”*, confirming the results of topic eight.

Topic number nine highlights the terms “Website”, “Content”, “Project”, “Social Media” and “Share”. This is the topic with the lowest number of opinions and reveals that Internet professionals consider that a retail website should be the center of the project strategy, and all the valuable content must be shared on all SM pages where the company has a presence, creating a hybrid-approach between social, dynamic content and static content. *“Not having a website is like not having a physical address to the office. Nobody will be able to trust the brand without a website. (...). Without a website, it will be difficult for the brand to build trust with the customers”*. In terms of content, a copywriter revealed that *“social media platforms and mobile applications are always hungry for valuable and relevant content consistently to stay useful to their users”*. Strategically, the use of SM is used to engage with their target, communicate relevant information, and redirect traffic towards the company website (Culnan et al., 2010).

4. Discussion and conclusions

In this paper, 127 unstructured interviews were conducted with Internet professionals who provided their perspective on the relevance of retail websites, commercial MA and SM platforms in their online strategy, and what are the aspects that make users choose one platform over the other. TM and topic modeling were used to analyze such data and provided results of their perspective.

Internet professionals revealed that SM is being used to communicate and engage with their targets, conduct marketing activities, such as brand awareness, lead generation, customer acquisition, and customer retention, and to drive traffic to their website. According to Needles and Thompson (2013), the use of SM for communication purposes, lead to the creation of relationships, increases word of mouth and customer loyalty, while Holliman and Rowley (2014) argue that digital content marketing is an advantageous mechanism to attain a trusted brand status. Within the existent SM platforms, professionals outline Facebook as the most important of them all (e.g., *“If a brand does not have a review section on their website – users know to expect that their brands’ Facebook most likely will.”*). This understanding in line with user behavior since they are spending an excessive amount of time on this platform (Tang et al., 2016).

It is unexpected the absence of terms related to usability (efficiency, efficacy, and satisfaction) in Table 5. The usability concept incorporates the utilitarian and hedonic dimensions of a system. Utilitarian is related to function, goal-directed, and performance-based, while hedonic motives are associated with entertainment, enjoyment, and fun (Wagner et al., 2014). Both dimensions are essential drivers of technology use. On the other hand, professionals seem to attribute the quality of content as the key to convince consumers to visit their website. Accordingly, “content” is highlighted four times. Concerning the discussed platforms, the terms “website” and “social media” are the most represented (seven times, plus two times “Facebook”), reinforcing the importance of these platforms in the professional’s strategy. Surprisingly, it is not given the same significance to MA. The term “application” shows three times, and one of them has a relatively high β value (4.31). MA have an important role nowadays (Hwang et al., 2016), mainly since 90% of the time spent on a smartphone is using a MA (Alliance, 2017), reinforced by the increasing number of MA downloads over the years (Statista, 2019b).

For instance, the application of gamification techniques in a commercial MA to attract and retain users has been showing exciting results (Xu, Tian, et al., 2016) that seem to be ignored by professionals.

A more in-depth analysis from the nine most relevant terms per topic reveals six topics that show a point of view towards the use of a retail website, SM and commercial MA in an online strategy (topics 1, 5, 6, 7, 8 and 9), corresponding to the opinion of 72 professionals, and three topics revealing the opinion of professionals for the behavioral change (topics 2, 3 and 4), corresponding to 55 opinions. Topics number 1, 5, 6, 7 and 9 are characterized by the opinion of 63 professionals that argue that the retail website must be the center of the online strategy, while topic 8 (9 opinions) conceals otherwise, meaning that the online strategy should be focused on a SM platform. This highlights the preference of professionals for setting the website in the center of the online strategy (88% against 12%), not confirming hypothesis 1.

The reasons are the lack of control over the SM platforms since every time the platforms' algorithm is changed, there is an impact over their business. This is an unexpected result since many agree (55 opinions) that there is a change occurring on the Internet, and professionals are not acting accordingly to meet consumers' expectations. The complexity and speed of the business environment puts significant pressure on workers to be prepared for rapid and constant changes. Facing these changes, professionals undertake resistance to minimize their impact in their daily work (Rafferty and Jimmieson, 2017). Companies need to ensure the organizations' agility to adapt to a new paradigm. This fact demands that organizational agility and agile workforce adapt quickly to a new scenario to achieve success and thrive (Braun et al., 2017).

On the contrary, despite not many having this opinion (12%), some argue that business should innovate their online strategy by evolving and adapting to the identified behavioral

change to suit customers' preferred habits, or else, they will face extinction. They consider that MA and SM platforms are here to stay and consider these platforms as a natural way of connecting people in a way that makes life and taking action seem easy (e.g., *"The more brands realize how powerful social media is, the more we will see forward-thinking companies bringing teenagers onto the payroll to manage content."*).

Topics 2, 3, and 4 (55 five opinions) reveal the opinion of professionals concerning the behavioral change. In their opinion, smartphones are responsible for the increasing use of SM and commercial MA due to the speed and easiness to access personalized content, instant updates, and to its user-centered design (hypothesis 2 partially confirmed). The highlighted characteristics are according to the literature (Alnawas and Aburub, 2016; Kang, 2014). However, professionals seem to ignore other crucial aspects that are relevant for the continued use of SM and MA, namely, hedonic and utilitarian motives, and others related to system quality, information quality, and service quality, such as simplicity, reliability (Huang and Benyoucef, 2013), clarity, ease of reading (Ku et al., 2013), entertainment (Hsu and Lin, 2016), innovation, feedback, and personalization (Alnawas and Aburub, 2016). Lack of conceptual knowledge does not allow the understanding of the full potential of SM and commercial MA, as well as the reasons that lead consumers to change their behavior when they decide to access the Internet.

Considering the identified behavioral pattern, confirmed by statistical data and 43% of the professionals, recommendations need to be addressed. Professionals should use SM and MA for social commerce and transactions, taking advantage of the actual dynamic that is occurring over the Internet to reach their objectives. It is crucial to follow the dynamic revealed by users, meeting their demands to achieve success, and adopt strategies to optimize the use of SM and MA (Catalán et al., 2019; Xu, Tian, et al., 2016).

Data suggest that retail websites will continue to have relevance in the Professionals' opinion. Following their point of view and resistance to change, professionals should consider retail websites as a hub and redirect consumers to where they like to be, meaning SM platforms and MA. As an alternative, to create conditions in the retail website similar to those that users find on SM and MA, allowing them to interact, collaborate, add value to the process (Huang and Benyoucef, 2015), and enhancing user experience to create a positive dynamic in the retail website, especially in the smartphone setting (Yu and Kong, 2016).

Understanding the user dynamics on the Internet and following their interests, will gather companies and users in the same place, increasing sales efficiency, improving product or service, and increasing their awareness and influence.

Overall, the contribution of this paper is expected to be significant. The collection of professionals' opinions toward the place of retail websites, commercial MA, and SM platforms in their online strategy and the reasons for the behavioral change concealed outstanding theoretical and managerial contributions. Professionals are not adapting their strategies although recognize the behavioral change in the access to the Internet, showing some resistance or lack of knowledge. Also, not enough attention is given to the aspects valued by consumers for the use of SM and MA. The absence of comprehension of the importance of these variables does not allow them to identify the real significance of SM and MA for the consumer. Facing this scenario, scholars can use this valuable knowledge as an immediate reference to conduct research, considering the opinion of Internet professionals of the use of technological platforms on their online strategy. In turn, Internet professionals can use the created knowledge to gain competitive advantage by redirecting their strategy toward the identified behavioral change to better target and communicate with their audience and market segments.

As in any research, limitations need to be addressed and be taken into consideration. Only Internet professionals from the LinkedIn groups took part in this study. Nonetheless, the revealed limitation does not put in jeopardy the purpose of demonstrating the professionals' opinion toward their online strategy.

For future research, it would be interesting to conduct this study focusing on a particular area of business, product, or service, adding an objective criterion, and compare results with these findings.

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Cengage Learning.

Table 1 - Advantages associated to SM

SM advantages	Reference
Access to new customers, build relationships, increase customer loyalty, increase word of mouth	Needles and Thompson (2013)
Educate, empower people, inform	Thackeray et al. (2012)
Collect clients and competitors' data, build and manage reputation, engage with customers	Verdeguer et al. (2014)
Implement marketing campaigns, create brand awareness, increase customer satisfaction, increase sales and revenues	He et al. (2017)

Table 2 – Advantages associated to MA

MA advantages	References
Brand engagement, communicate brand values, influence customer satisfaction, improve brand image and awareness, marketing research, product innovation	Alnawas and Aburub (2016)
Accessibility, available in an app store, increase sales	He and Liu (2017)
Access to millennials market, creates revenue opportunities, enhance customer loyalty, increase user engagement, improve operating efficiency, provide control over customer experience, reduce distribution costs	Qin et al. (2017)

Table 3 - LinkedIn Groups

Group	Number of followers
Digital Marketing: Social Media, Search, Mobile & More	379,601
Social Media Marketing	1,756,062
Social Media Marketing 2.1	181,098
Search Engine Land	79,066
Social Media Centre of Expertise	605
Mobile Application Community	9,171

Table 4 - Professionals background

Professionals background	Frequency
Online marketing	19
Digital manager	15
Web designer	15
Digital marketing strategist	12
Web developer	10
CEO	8
Online consultant	8
Technology journalist	8
Copywriter	6
Software engineer	6
Lead generation consultant	5
Online business expert	5
Others	10
Total	127

Table 5 - Relevant topics

Topic	#	1 st term		2 nd term		3 rd term		4 th term		5 th term		6 th term		7 th term		8 th term	
		term	β	term	β	term	β	term	β	term	β	term	β	term	β	term	β
1.	15	Website	3.10	Business	3.14	Google	3.60	Search	3.76	Engage	4.65	Information	4.87	Social Media	4.89	Strategy	4.98
2.	10	Application	3.28	Social Media	3.52	Service	3.75	Facebook	3.88	Time	3.97	Easy	4.63	Phone	4.85	Content	4.98
3.	16	Website	3.52	Application	3.56	Success	3.95	Design	4.09	Experience	4.23	Business	4.67	Technology	4.86	Brand	4.95
4.	29	Website	3.27	Content	3.70	Channel	3.95	Professional	4.12	Habit	4.30	Share	4.40	Quality	4.51	Update	4.64
5.	16	Social Media	3.00	Website	3.36	Business	4.05	Control	4.15	Continue	4.53	Algorithm	4.55	Owner	4.69	Message	4.86
6.	15	Social Media	3.11	Website	3.78	Post	3.91	Customer	4.81	Interact	4.88	Traffic	5.00	Content	5.00	Engage	5.02
7.	10	Social Media	3.24	Business	3.62	Traffic	3.74	Brand	3.79	Communication	4.21	Online	4.35	Create	4.41	Marketing	4.88
8.	9	Facebook	3.72	Social Media	3.82	Website	3.93	Strategy	4.07	Application	4.31	Homepage	4.48	Business	4.51	Innovate	4.69
9.	7	Website	3.29	Content	4.17	Project	4.20	Social Media	4.21	Share	4.34	Hybrid	4.69	Strategy	4.86	Static	4.93

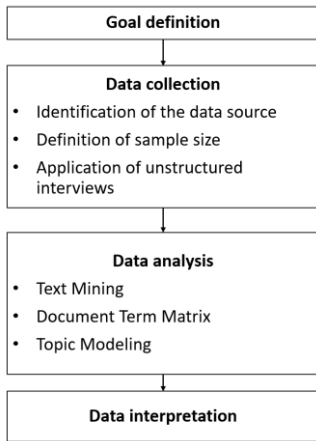


Figure 1 - Methodological phases

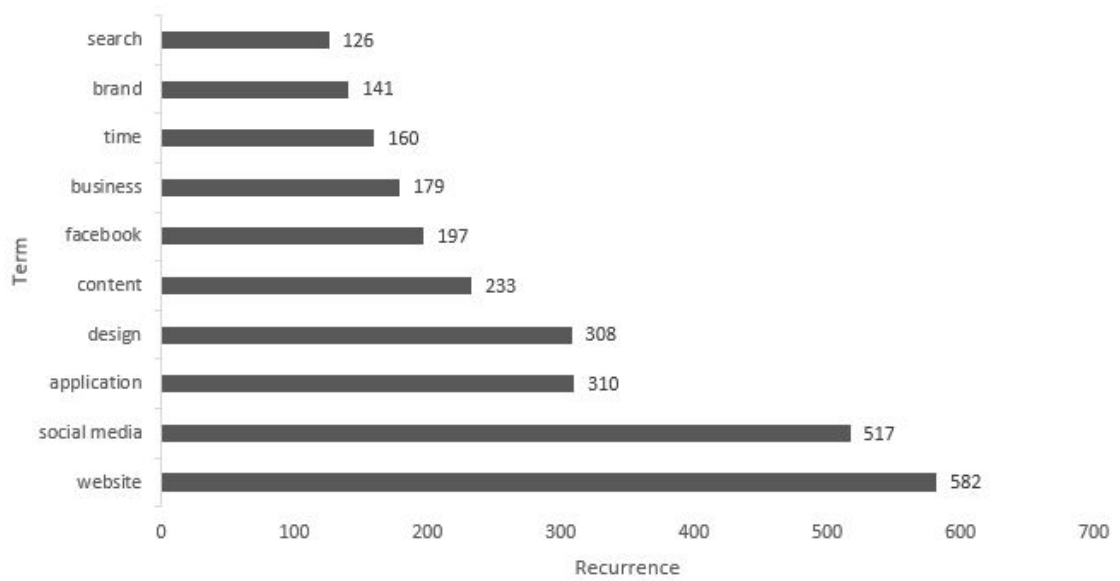


Figure 2 - Most pertinent term recurrence

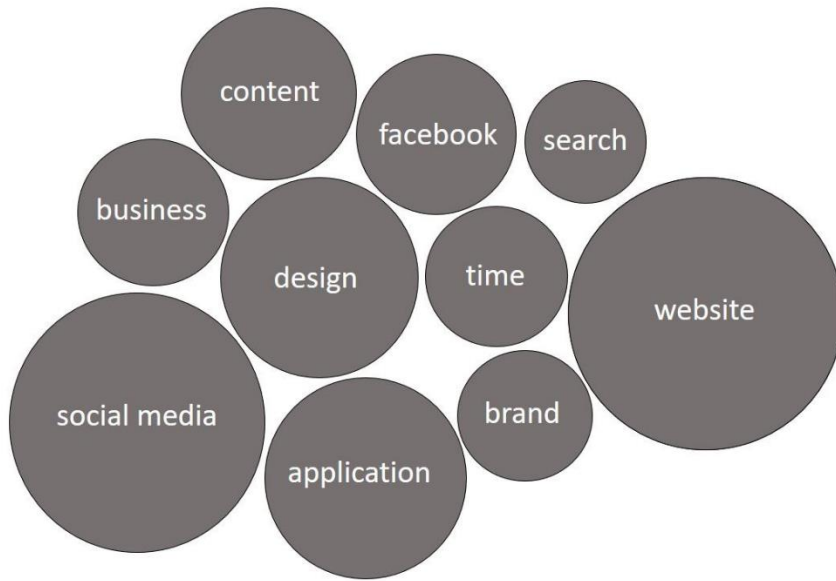


Figure 3 - Packed bubbles for professionals' perspective