

Why Social Media Is an Achilles Heel? A Multi-dimensional Perspective on Engaged Consumers and Entrepreneurs

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Abstract. The main goals of this paper are: to identify what drives consumers and businesses to use social media; to observe the main usage patterns in the case of Romanian graduate students from a multi-dimensional perspective: as consumers (the individual level); as entrepreneurs (the company level); and the sociological level (side effect felt due to interaction on social networks (SNSs)). Our research is an exploratory one. We conducted interviews with 40 graduate students who are also entrepreneurs in small and medium-sized companies (SMEs), aged between 23 and 35 (Millennials) who usually spend more than two hours on SNSs. Questionnaires were built on three variables, namely, engagement, confidence and technological abilities of consumers/entrepreneurs. In this paper, we undertook to structure our quantitative analysis of qualitative data around several hypotheses, generating, for the validation/invalidation thereof, centralized frequency tables with associated, relevant graphs (for all hypotheses) and correlation-related issues, reflected by the use of the directional Spearman (ρ) coefficient (for the last hypothesis considered). Such differentiated approach emerged from our intention to cover a wider range of procedures, while revealing the most interesting and suggestive results of our study, considering the limitations imposed as to the maximum size of articles. The results obtained show that, in general, the subjects' behavior is marked by a lack of trust, source of vulnerability, both for consumers and entrepreneurs. This vulnerability permeates all researched sections, with different intensity, which justifies the name we have chosen, the Achilles heel.

Keywords: Consumers · Entrepreneurs · Engagement · Trust · Power

1 Introduction

Network Readiness Index (2016) reveals us exactly where Romania is positioned in terms of *Internet access*. Thus, the Internet availability sub-index shows that Romania ranks 47 of 143 countries, with an average of 5.2 (index values are between 1 and 7). The degree of availability is calculated based on three parameters, namely: infrastructure, availability and Internet use skills, each of the three with a share of about one third of the index value. Romania ranks 52nd in infrastructure, 61st in availability and 66th in skills.

Surprisingly, the Internet use by individual consumers places Romania on the 61st place (the top half) with an average of 4.5. Companies are positioned worse than individual consumers, entrepreneurs ranking 76 (3.5 value), and the governmental structures are least involved in using the Internet, Romania being the 85th in the ranking (3.6 value).

Despite the fact that Romania is in a relatively favorable position in terms of Internet access (47th) and Internet use (66th), the *economic and social impact* of Internet use is still very low. Romania ranks 80th among 143 countries in terms of Internet use impact (average value - 3.5). The economic impact places us 85th (3.1), and the social impact 77th (4.0) in this ranking.

Internet development is favored by the growth of social networks (SNSs), the most active users of these are the youngsters in the Millennials generation, aged between 20 and 35 years old.

About the Millennials (people born after 1982) there are numerous studies (Oblinger and Oblinger 2005; Raines 2002; Veen 2004; Karpati 2002) that managed to shape a portrait of them. Among the many features identified for the Millennials are: they are good at technology; show preference for structure; are eager for entertainment and uniqueness, scanning abilities; multi-tasking; non-linear learning style; processing disrupted flows. The German report (Veen 2004) refers to the Millennials as Homo Zappiens, due of their ability to use technology.

In this context, our objective was to decode the youngsters' behavior on social networks, mainly of students, as they belong to the Millennials generation. Thus, we selected a total of 40 students of bachelor and masters studies in Romania who are also entrepreneurs. Our objective was to find out if there is a general pattern of network use. What is the extent of their engagement on SNSs, as consumers, on the one hand, and as entrepreneurs, on the other hand? To what extent they possess the necessary skills to impact social networks? What are the side effects (Achilles heel) that students, in their double role, claim as a result of SNSs interaction?

Our paper is organized as follows: in the first section we review the social media literature, in an attempt to define the basic concepts we operate with: social media, consumer, entrepreneur, motivation for using the social media, trust, power. In the second section we present the research methodology and then we discuss the results. Finally, we draw conclusions, discuss the limits of our study findings and indicate some directions to follow for future research.

2 Literature Review

Specialized literature defines, on one hand, the environment and, on the other hand, the user.

Boyd and Ellison (2007) define social media as web services allowing individuals to build a public or semi-public profile within a given system; to compile a list of users to connect with; see and follow their own connections, as well as others' within the system (Logan 2014).

According to The Interactive Advertising Bureau (IAB), social media comprises three elements, namely: social media websites (SNSs), blogs and mobile networks

(IAB 2009). In this paper we discuss about the behavior of users on social network websites/social networks (SNSs).

Carter (2016) shows that social network sites (SNSs) are communication websites where individuals express themselves and groups act; on the other side, these are meeting websites where business people use individual discourse to understand markets and make predictions.

From our point of view, social networks are *tools* that individuals use to shape their role through the activities and behaviors they adopt. Therefore, if the role played is that of a consumer, by the activities undertaken on SNSs, the individual tries to build a favorable profile and a positive image among friends and third parties, mainly because he/she desires to gain power and influence and thus, to increase his/her self-esteem (Baconschi 2015); if the role is that of an entrepreneur, through the actions started on SNSs, he/she seeks to obtain money, power and influence and thus, to develop his/her business (Ghenea 2011). In other words, the desire for power and influence motivates individuals to adopt specific behaviors, depending on their purposes.

According to the roles theory, the consumer's behavior looks a lot like actions in a play where every consumer has his/her own text, costume and props necessary to "stage the show" (Goffman 1959). Since they play numerous roles, consumers may choose to act differently, according to the "play" starring at that time. Therefore, they can play the role of the "chooser," communicator, researcher of their own identity, victim, activist, pleasure-seeker or influencer – one at a time – or sometimes – all at once (Gabriel and Lang 1995).

A very important role of the social networks is the extent to which these allow brands and consumers to connect, communicate and express engagement (Rohm et al. 2012). According to Burns (2006), *consumer's engagement* has been defined as the process to guide a potential consumer to an idea of brand enhanced by the context. Therefore, engagement is an important element in the consumer-brand relation (Haven 2007; Gambetti and Graffigna 2010).

In the online world, consumers seek to play an increasingly bigger *role* in the goods' purchasing and consumption process (Calder et al. 2009). A recent study (Parent et al. 2011) defines engagement in the brand-consumer relation on social networks as limited by the following actions: creating and posting online content relevant for consumers; exerting a certain degree of control on the content so that it can be shared with friends and even modified by them; creating a sense of community between consumers; facilitating dialogue between consumers, rather than communicating a direction of discussion. Lately, however, the consumer succeeded to tip the scale in his/her favor. Therefore, by *generating content, by an extremely careful selection of favorite brands* (taken actions), the consumer proves his/her choices can really be a source of power and economic and social benefits. This power comes from the demand for goods and services (the impact of the decision to buy), from information (sent and received), from the ability to adapt the content encountered on the SNSs to own needs and, finally, from the ability to mobilize and structure resources allowing a greater number of community members to benefit from such resources (Labrecque et al. 2013).

SNSs such as Facebook, Twitter and YouTube are widely adopted by *entrepreneurs* who try to use them for the benefit of their businesses. From the entrepreneurship perspective, SNSs are marketing tools. Little is known about how

SNSs influence entrepreneurs. And even less is known about the way in which network use facilitates behaviors and activities meant to help them develop, discover new markets and opportunities (Fischer and Reuber 2011). For entrepreneurs, power is generated by the easy access to *information*, as well as the speed with which this information is spread on the market (Labrecque et al. 2013). From this point of view, a greater use of networks by entrepreneurs may be a significant power indicator.

Burns (2011) has shown that when entrepreneurs start a business, they bring to it capital in a number of different forms such as: financial, human (that means previous managerial or field experience and training) and also social, derived from access to appropriate professional networks. Firkin (2003) states that more capital entrepreneurs bring to their businesses, particularly the one derived through networks, more likely they are to succeed. At the same time, Ghenea (2011) points out that information from the contact networks (generally social networks on the Internet, but without underestimating in any way the still valuable traditional social networks) is an extremely powerful weapon that entrepreneurs can use any time in the development of their business. Social capital in the form of networks of friends and commercial contacts is important because it can bring with it credibility, it can provide the first customer, or low-cost or free office-space (Burns, 2011). Or, the thousands of friends on Facebook and/or thousands followers on Twitter can validate (or invalidate, or correct) the idea in its path to a business opportunity (Ghenea 2011). On the other side, Di Fiore (2011) draws attention on the fact that social capital is consumed and professional networks essentially help you better manage your capital. The approach must be selected according to the importance of the request, for example when asking a favor on LinkedIn or Facebook you cannot endanger the friendship with that person; and this reduces pressure on both sides, the same author says.

Social capital is built on relations – relations are the core of the social life (develop relations with other individuals, as social beings), but also of the entrepreneurial approach to do business; relations with clients, suppliers, employees, banks and owners. All relationships are based on trust, self-interest and reputation (Dubini and Aldrich 1991). *Trust* is an important component of the social life (Christakis and Fowler 2015). It is obvious that it can be extremely risky to trust anyone. We are never more vulnerable than when we trust someone. Therefore, trust can be a source of risk and vulnerability.

The level of trust in social networks is different. In countries such as the USA, people feel comfortable to interact with strangers; no entrepreneur hesitates to share his/her business ideas with others and he/she does not fear his/her ideas could be stolen. In contrast, Hostiuć (2016) shows that Romanians hold everything well hidden, thinking they have the best idea in the world and they will become millionaires. Ghenea (2011) also draws attention on the fact that, for reasons difficult to identify, very few Romanian entrepreneurs at the beginning of their business really use information on social networks – for example, says Ghenea, many young entrepreneurs, that probably spend much more time on Facebook than watching TV, fail to take into consideration in their business analysis simple things such as checking an idea or a concept on the existing social networks.

Trust plays an important role in the consumer-SNSs relation. There are different definitions of trust based on terms such as: goodwill, integrity, ability, competence

(Gefen, 2002; Gefen et al. 2003). On these platforms, where consumers interact with one another, community members may get closer to one another, thereby providing a potential source of trust through exchange of information (about products and not only) (Lu et al. 2010). Finally, trust is the one that can influence the consumer's intention to buy (Lorenzo et al. 2007).

This confidence underlies the element that defines the model known in specialized literature as the technology acceptance model (TAM) (Davis 1989). Acceptance, by users, of the facilities offered by technology was the first step in building this theory (Davis et al. 1989). TAM states that the constituents of technologies play an important role in the acceptance of systems by users (Pavlou 2003). Initially, Davis (1989) defined the concept of perceived usefulness as the degree to which a person believes that using a particular system would enhance his/her job performance. It is one of the main reasons for which people are generally receptive to new technologies. Moreover, the way in which these technologies are used may predict, with relative accuracy, the user's behavior, including that of consumers and the entrepreneurs (Pavlou 2003).

The new generation of Romanians understands the need to open up, to share their ideas with others before going further, although this is a difficult process related to our history to "defend" against enemies and competition (Hostiuc, 2016). Over time, due to historical circumstances, the Romanians' main objective was survival. This determined Romanians to avoid uncertainty. Moreover, in Romania there is no culture for risk taking also because of the past regime, with the state as main decision-maker.

3 Methodology

Since our objective was to decode the youngsters' behavior on social networks, especially students (Millennials generation), we addressed, to a number of 40 students of bachelor and master's degree in Romania, two types of questionnaires – one with specific questions for students as consumers and the other for the same students as entrepreneurs. By doing so, we wanted to know if there is a general pattern for the use of social networks by students or, simply put, to find out what our students do on social networks.

Our specific questions were meant to: clarify the term engagement and the extent of it on SNSs, as consumers, on one hand, and as entrepreneurs, on the other hand; reveal the nature and size of the technological skills students hold as consumers or entrepreneurs in order to exert impact on networks; identify the side effects (Achilles heel) that students, in their double role, claim on SNSs. We consider that, in this way, we covered three levels, namely: the individual level (consumer); the organizational level (entrepreneur and company) and the social level/sociological dimension related to vulnerabilities, trust, influence and power mentioned in the specialized literature.

Our research is qualitative at the base. In order to outline the general pattern of using SNSs by students, we took into account three variables as theoretical background for our study: engagement, technological skills and trust in the students' relation with networks. We chose these variables as basis for our research as they are closely related to the specialized literature (Burns and Christiansen 2011; Drury 2008) and from a conceptual standpoint they are related. These combined variables show us that

individuals seek to gain power within the networks, whether is it about power based on demand (influence others to buy); power based on information (circulation of information created or transmitted by the user); and community-based power (the power to mobilize and structure resources for the benefit of individuals and community) (Labreque et al. 2013).

Yet, the analysis of qualitative data, structured around several hypotheses, is quantitative, generating, for the validation/invalidation of the same, centralized frequency tables with associated, relevant graphs (for all hypotheses) and correlation-related issues, reflected by the use of the directional Spearman (ρ) coefficient (for the last hypothesis considered). Such differentiated approach emerged from our intention to cover a wider range of procedures, while revealing the most interesting and suggestive results of our study, considering the length limitations imposed.

Knowing that the frequency tables, respectively the corresponding graphical representations speak by themselves, under the elaborated form rendered by the authors in the Results and Discussions section, not imposing any additional comments in terms of detailing the methodology used, we exclusively focus herein on the methodology relating to the Spearman (ρ) coefficient. This coefficient is highly useful when dealing with ordinal data fit for a bi-varied correlation determination, such coefficient allowing for the transformation of the original inputs into ranks, without being influenced in any way by the average representativeness (Opariuc 2011).

The formula used in the context of this coefficient takes two forms, depending on the repetitiveness or non-repetitiveness of the established ranks (directly suggested in the following by the detailed presentation of the associated results):

$$\rho = 1 - \frac{6 \times \sum dif_rank^2}{n \times (n^2 - 1)}$$

respectively, for identical ranks, as in our case:

$$\rho = 1 - \frac{n \times (\sum rank_1 \times rank_2) - \sum rank_1 \times \sum rank_2}{\sqrt{n \times \sum rank_1^2 - (\sum rank_1)^2} \times \sqrt{n \times \sum rank_2^2 - (\sum rank_2)^2}}$$

where *dif_rank* represents the difference between the ranks of the values of variables relating to each respondent, *n*, the sample size, namely the number of respondents, and *rank₁*, *rank₂*, the rank of the first, respectively of the second variable.

When coming to construe this coefficient, which is bidirectional, as above-mentioned, we have to consider two steps: the first step concerns the identification of the intensity of the correlation relationship, if any, this being directly related to the value obtained, belonging to the interval $[-1;1]$, an extreme value reflecting either a perfect negative correlation of variables (-1) or a perfect positive one (1), while the absolute lack of correlation of the same being indicated by their median value (0); the second step consists in determining the significance level of the result obtained or otherwise said, in revealing the precision of the same. This can be done by comparing the obtained value (for different sizes of errors: 1%, 5% or 10%) either with the ones provided by the Spearman coefficient significance level tables, or, if the number of

entries exceeds 10 (as in our case), with the ones provided by the t-student test, considering $n - 2$ freedom degrees for the two variables used, by resorting to the formula:

$$t = \rho \times \sqrt{\frac{n - 2}{1 - \rho^2}}$$

4 Results and Discussions

In order to be as coherent as possible in revealing the results obtained, we decided to clearly structure them by hypotheses, thereby covering, step by step, our beliefs initially mentioned at pure theoretical level:

Hypothesis 1: Higher the students’ involvement on social networks, greater their engagement:

Hypothesis 1a. As consumers – to favorite brands;

Hypothesis 1b. As entrepreneurs – to their own brand/product/service.

To analyze the level of involvement of respondents as consumers, we considered the following elements: ads viewed and their impact on consumers; share of online shopping compared to total purchasing; benefits of network presence as consumers; effective promotion of favorite brands (undertaken actions).

The ads viewed on social networks have an important role in the customer-brand relation. Thus, 55% of consumers say that ads viewed on social media have a high and very high impact on their decision to buy a product while only 20% say that ads viewed have no impact or a very low impact in deciding to buy products (Table 1).

Table 1. Consumer engagement perceived by the social media ads impact on the purchase decision

Respondents	Medium to very high impact on the purchase decision	Low to very low impact on the purchase decision
40	22	8
100%	55%	20%

A proof that ads on social media have a strong influence on the purchasing behavior is the large number of consumers *buying online* - 88% - while 13% say they prefer to buy products predominantly from traditional stores (Table 2).

Table 2. Consumer engagement perceived by the online purchase of products

Respondents	Online purchase of products	Other forms of purchase of products
40	35	5
100%	88%	13%

The consumers' engagement depends on the extent to which the same relate social media to various *benefits* such as: promotion, diversity, novelty, commodity, opportunity and accessibility. As shown in Table 3, 75% of consumers associate social media to the above mentioned benefits while 25% do not perceive it as generating benefits.

Table 3. Consumer engagement perceived by the benefits provided by the same (promotion, diversity, novelty, comfort, opportunity, accessibility)

Respondents	Benefits brought by social media	No benefits generated by social media
40	30	10
100%	75%	25%

Connection to brands may be best analyzed if we consider the *actions undertaken* by consumers for their favorite brands.

As shown in Table 4, 38% of respondents (consumers) declare they advertise for their favorite brands, 30% say that after they see the products on networks they try to order them, and 23% create content about their favorite brands and share it. Therefore, we can identify a very strong link between consumers and their favorite brands.

Table 4. Consumer engagement perceived by their involvement in brand-related activities

Respondents	Seeing and trying to order fashioned products	Making publicity for preferred products	Creating and distributing interesting contents
40	12	15	9
100%	30%	38%	23%

In the case of respondents as *entrepreneurs*, engagement was analyzed considering the use of social networks for business purposes; the number of functions used on each network and the extent to which they promote their sales via social networks.

As shown in Table 5 above, 55% of entrepreneurs use 2 or more networks (Facebook and Twitter), 13% use only one network (usually Facebook). Other networks such as Instagram, Pinterest, LinkedIn and Yelp are less used for business. We can also notice that, surprisingly, 33% of entrepreneurs declare they do not use social media for their business (Table 5).

Table 5. Entrepreneur engagement perceived by the number of social media used

Respondents	Two or more types of social media used	One type of social media used	No social media used
40	22	5	13
100%	55%	13%	33%

Facebook is *the main social network* used by entrepreneurs to do *business*. Among Facebook users, 81% use 2 or more functions while 19% use one function (Table 6).

Table 6. Entrepreneur engagement perceived by the number of Facebook functions used

Respondents	Two or more Facebook functions used	One Facebook function used
26	21	5
100%	81%	19%

Among Twitter users, 73% declare they use 2 or more functions of the platform, and 27% say they use only one function (Table 7).

Table 7. Entrepreneur engagement perceived by the number of Twitter functions used

Respondents	Two or more Twitter functions used	One Twitter function used
11	8	3
100%	73%	27%

As for using networks to *promote sales*, out of the 27 respondents using social networks, 78% follow the sales growth/promotion, while 22% chose not to promote their sales through social media (Table 8).

Table 8. Entrepreneur engagement perceived by their intention to promote sales thereby

Respondents	Promoting sales via social media	Not promoting sales via social media
27	21	6
100%	78%	22%

We can conclude that the entrepreneurs' engagement on social media is high since they use two or more social networks; for each network they use at least 2 functions; and most of them use social networks to promote their sales.

In conclusion, hypothesis 1 regarding the engagement is validated, both in case of consumers (hypothesis 1a) and entrepreneurs (hypothesis 1b).

If the first 3 dependent variables taken into account related to *the consumers' engagement* to their favorite brands fit into the *general pattern* manifested by consumers on social media, according to the specialized literature (are influenced by the ads, buy online, and do this because they associate networks with certain benefits), the variable regarding *actions undertaken* to promote favorite brands (consumers advertise brands, are influenced by ads on SNSs and create and distribute content to promote favorite brands) tells us that consumers actively influence online demand. This type of influence turns into a *source of power* for consumers, as carriers of demand. This observation is in accordance with previous studies (Labrecque et al. 2013) that say that today's consumer is rather a super consumer; and the way this manifests in the digital environment reveals a form of power (Labrecque et al. 2013).

In the case of the *entrepreneurs' engagement* to own product/brand, the discussion is more complicated. Thus, the use of networks (two on average) and the number of functions (at least 2) show that entrepreneurs use *information* generated on networks mainly to promote their own brand/product to increase sales (general pattern). But the fact that 33% of entrepreneurs do not use networks for their own business suggests that the capability of those entrepreneurs to influence the markets is reduced, and the power – as access to new markets, consumers and opportunities – they have by means of networks is not sufficiently capitalized. From the specialized literature perspective, SNSs are more than a marketing tool for entrepreneurs (Fischer and Reuber 2011), because it provides access to new resources and broad communities. Thus, those who do not use the networks are working against themselves, by limiting their access to information, resources and opportunities (development). This increases the degree of vulnerability and risk exposure for the companies they lead.

Hypothesis 2: Lack of trust in social networks describes individual behavior, both as consumer and entrepreneur.

For consumers, lack of trust has been researched in terms of associations consumers make with social media, namely: promotion, manipulation, diversity, novelty, commodity, time saving, publicity, opportunity and accessibility.

Another important indicator to establish the level of trust in networks is represented by the *disadvantages* users perceive in relation to social media (waste of time; feeling of loneliness, frustration; promotion of negative behaviors, excessive publicity, social network addiction, contact with people one does not know and/or like). A third pillar was the extent to which consumers felt *influenced* (in buying a product) by social media.

As shown in Fig. 1, a quarter (25%) of consumers declared *they feel manipulated* by social networks. On the other hand, consumers relate networks to *benefits* such as: commodity, accessibility, publicity, diversity, promotion and novelty, opportunity and time saving in doing their shopping.

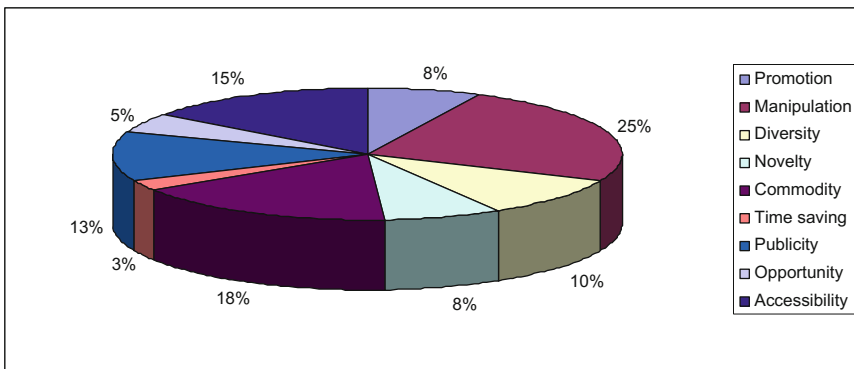


Fig. 1. What is social media for consumers?

In the same time, 23% of consumers mentioned that they experiment *negative emotions* when using social media. The great majority, however, declared that they did not experience such feelings related to social networks.

Trust relation may also be tested taking into account the disadvantages the consumers feel when using social networks (Shin 2010) Table 9 summarizes the main disadvantages experienced by the students-consumers.

Table 9. Consumer lack of trust in social media perceived by basic disadvantages caused by it.

Respondents	Wasting time	Creating the illusion of no loneliness	Promoting negative behavior models	Establishing contacts with unknown people you dislike	Seeing too many publicity	Creating dependency
40	4	7	9	2	5	13
100%	10%	18%	23%	5%	13%	33%

Felt disadvantages are: SNSs create addiction (33%); promote negative behaviors (23%); create the illusion of no loneliness (18%); too much publicity (13%); waste of time (10%) and establish contact with people you do not know and do not like (5%).

In the case of consumers, we can say that social networks are not based on unconditional trust because 25% of consumers said they feel manipulated when using such networks. But, this has not prevented them from using social networks, out of commodity, accessibility, publicity, etc. On the other hand, lack of trust also comes from the disadvantages noticed by consumers, such as promotion of negative behaviors or addiction to social networks. Moreover, 23% of consumers declared they have negative emotions when using social networks.

Lack of trust has been researched, in the case of *entrepreneurs*, from the perspective of those who say they do not use social media for their businesses. We also wanted to observe the reasons for which they chose not to use SNSs for business.

We can notice that a number of 13 entrepreneurs (33%) – do not use social media for their businesses (Fig. 2).

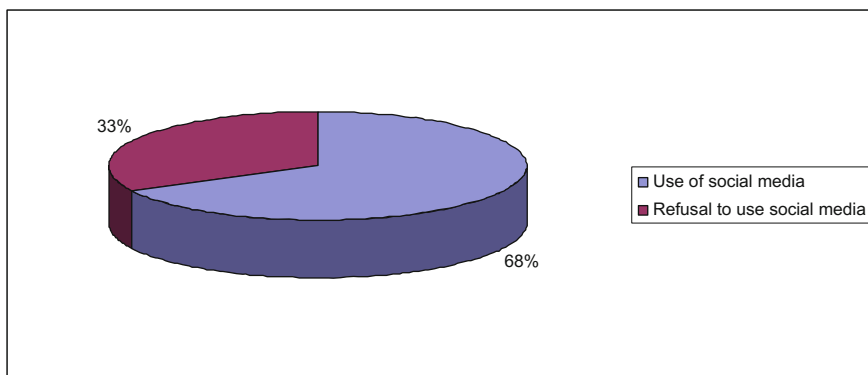


Fig. 2. Use of social media for business

When asked about the reasons why they do not use social media, most entrepreneurs (69%) declared that they see no benefit for the company, and 4 said they do not have the required skills.

Therefore, we can conclude that entrepreneurs that do not use social media justify this choice by lack of trust in the potential benefits they could obtain in using networks for their companies, and to a lesser extent by lack of skills.

Analyzing results both from consumer's (Hypothesis 2a), and the entrepreneur's (Hypothesis 2b) perspective, we notice that hypothesis H2 is validated: respondents generally lack trust in social networks.

In the specialized literature there are many references to the role of SNSs in building *social relationships* (Ba and Pavlou 2002; Cheema and Kaikati 2010). For example, showed how the dimension and features of a person's or company network matter for the *results* obtained, both by the *individual* and the *company*.

Specialized studies define addiction to SNSs as the compulsive use of SNSs manifesting in behavioral addiction symptoms. These symptoms often include conflict and frequent changes of mood.

The results of our research on trust, in this context, may be interpreted as follows: consumers consider aggressive/inappropriate manifestations as SNS disadvantages/associated risks; 23% experience negative emotions due to SNS interactions; their mood changes frequently when individuals realize not being alone is more an illusion than a reality. However, *pre-eminence on the networks* is a necessity (Taylor et al. 2011). And it is exactly this need for pre-eminence in terms of asserting their identity on the networks that makes consumers be more and more present on the network and be tolerant to the manipulation feelings they frequently experience. The need for pre-eminence, on the one side, makes the consumer be active and committed on the networks; manipulation, on the other side, makes him/her rather critical and distrustful. This means that the consumer is *vulnerable* in the sense that the need for pre-eminence causes him/her to always be online. At the same time, his/her actions are undermined by the lack of trust generated by the effects of the multiple connections (not all desired) that individuals may have in the digital space. Otherwise said, vulnerability is the price paid by consumers, a result of the "always on" system.

In entrepreneurship, there is little literature about *social competence*, a concept that appears to affect the resources entrepreneurs are capable of accessing, as well as what they can effectively do (actions) in collaboration with those they interact with (Baron and Tang 2009). All these studies show how network features, specific relations or individual differences regarding social skills affect the companies' economic results.

In this regard, it must be kept in mind that our research targets the student-entrepreneur who generally tries to develop a start-up. It is common sense to believe that he/she does not have full confidence in the way his/her brand is positioned on social networks. The entrepreneur-student could use social networks to check and promote his/her idea/business, but he/she can also be worried that, given his/her lack of resources, someone else might steal his/her idea. The reluctance to access networks may suggest the entrepreneurs' low social skills, which make him/her vulnerable in business. But, unlike consumers who pay a price – vulnerability – because they are and

have to be the wall, despite disadvantages and negative feelings – for entrepreneurs, the same type of vulnerability occurs because of their non-participation in the digital space.

Hypothesis 3: The technological skills of social network users are a source of power and economic benefits:

Hypothesis 3a. For consumers – they can buy anytime, anything, without effort and restrictions;

Hypothesis 3b. For entrepreneurs – increased sales and management of customer relations.

We analyzed the consumers’ technological skills from two points of view, namely: the *time* spent on social networks and the *frequency of accessing social networks* from mobile phones for information and/or shopping.

We notice that most consumers (43%) spend more than two hours on social networks, either for information, shopping or for both (Table 10).

Table 10. Consumer technical abilities in using social media perceived by the knowledge accumulated by accessing the same several hours per day.

Respondents	Up to one hour per day	Between one and two hours per day	More than two hours per day
40	9	14	17
100%	23%	35%	43%

Consumers tend to access SNSs from their personal computer, but also from tablets or mobile phone. Generally, students have an increased propensity for using smartphones. As consumers, our respondents considered the phone as the main device/tool to access networks. This is the reason why we chose to test the consumer’s technological skills in terms of the *frequency* with which they use *mobile phones* to collect information about products and services, or to access online stores for shopping.

In our case, all consumers use mobile phones to access networks, half of them (50%) indicating a very high degree of usage and 43% indicating a very high usage of smartphones for information and/or shopping.

In other words, the *technological skills* of respondents as consumers allow them to use mobile phones for information and consumption, 78% of them spending more than one hour daily on social networks (SNSs).

As for our respondents as *entrepreneurs*, we chose to test their technological skills in how they see themselves in using social networks (SNSs). Things become a little more complicated as most entrepreneurs see themselves as average (44%) or beginners (19%) in using networks. 37% of entrepreneurs perceive themselves as advanced.

Of all entrepreneurs, only 4 (10%) declare they have no skills to use social networks.

The observations that can be drawn from analyzing the entrepreneurs’ skills in using social media are: most entrepreneurs see themselves as beginners or average in using networks; they spend, on average, between one and two hours, or more than two hours on networks via mobile phones.

However, 33% of entrepreneurs do not use social networks for their companies. Even if, in principle, most show the ability to use new technologies, 10% of those who do not use social media are not capable of doing it, because they lack the necessary skills.

In short, we can say that, in case of consumers, the ability to use networks actually helps them be active and manifest in this environment as consumers. On the other hand, individuals in their position of entrepreneurs are less ready, from the technological point of view, and less efficient in using networks for their businesses.

Therefore, hypothesis 3 regarding the technological skills of social network users is only partially confirmed, meaning that only consumers exploit social media as a source of power and economic benefits (Hypothesis 3a).

The results of our research on the users' ability to use SNSs may be interpreted as follows: Internet progress, the emergence of Web 2.0, together with the development of SNSs channeled power to users. In this regard, consumers apparently use the full network facilities. Through SNSs, consumers become informed and buy products and services, without effort and restrictions. This finding is consistent with the specialized studies which say that in the online space, users benefit from the so-called "disinhibition effect" that enables them to express freely in this environment. In the case of respondents-consumers, this disinhibition effect manifests through their *actions*, starting from the simple information to the actual purchase.

In the case of respondents-entrepreneurs, our findings are, again, a little more complicated: entrepreneurs see themselves as beginners or average in using SNSs. On the other side, 33% of them do not use SNSs, either because they do not see SNSs' benefits or because they do not possess the necessary skills. In other words, entrepreneurs do not have access to the power of networks, so they cannot capitalize the information available there, they cannot relate with people when they need help and they do not have access to the resources needed to develop their business. In short, they cannot develop the social competences necessary to become visible in the business world.

Reaching a quite different level of approach, the last generic hypothesis considered is rendered, in fact, by the union of two opposite hypotheses: H0 (the null hypothesis) and H1 (the alternative hypothesis), being formulated based on the specific requirements relating to the correlation analysis specific context, namely the perception of benefits related to SNSs use by consumers and entrepreneurs. Is there or not a link on how respondents relate to the benefits of SNSs, as consumer and entrepreneurs at the same time?

H0: There is no correlation between the level of specific benefits brought by social media to consumers and the level of specific benefits brought by social media to entrepreneurs.

H1: There is a correlation between the level of specific benefits brought by social media to consumers and the level of specific benefits brought by social media to entrepreneurs.

The results rendered below are intended to reveal the acceptance or the rejection of the null hypothesis (H0), doubled by the related comments.

The results obtained are based on the association of the values, expressed both in absolute and relative values in Table 11, generated by the answers of respondents to two questions: Qa. *To what extent do you think that social media effectively help you in developing your business?* (for entrepreneurs) and Qb. *To what extent do you think that social media effectively help you in buying products?* (for consumers):

Table 11. Absolute and relative values associated with answers to Qa and Qb

Respondents		Very much (VN)	Much (M)	Medium (MD)	Little (L)	Very little (VL)	Not at all (NAA)
Entrepreneurs	40	8	12	4	3	0	13
	100%	20%	30%	10%	8%	0%	33%
Consumers	40	4	11	17	6	2	0
	100%	10%	28%	43%	15%	5%	0%

The preliminary processing of data for the application of the Spearman coefficient involves identifying the position of each element of the common range of answers for the two variables (Table 12) and the determination of the related ranks, as rendered in Table 13, presented in Appendix.

Table 14, also presented in Appendix, reveals all operations necessary, given the identified ranks, for getting the Spearman coefficient.

The next step consists in applying the Spearman coefficient formula specific for variables with identical ranks, this leading to:

$$\rho = 0.584101$$

This suggests, as expected, an existing positive correlation, medium in intensity, between the two variables had in view (the value ranging between 0 and 1), indicating that we should reject the null hypothesis stating that *there is no correlation between the level of specific benefits brought by social media to consumers and the level of specific benefits brought by social media to entrepreneurs*, therefore accepting H1.

As this affirmation should be analyzed in terms of correctness, we proceed with comparing such value with the ones encountered in the Spearman coefficient significance level table, ascertaining that it exceeds even the most restrictive value in terms of certitude ($p < 0.01$), thereby allowing us to accept the veracity of H1 with a level of trust of more than 99%.

$$0.584101 > 0.405000$$

The same is obtained while using the t-student test for determining the significance level, considering 38 freedom degrees:

$$t = 4.436028$$

$$4.436028 > 2.429000$$

confirming, with a sampling-related error of less than 1%, that the two variables considered are, indeed, correlated with one another.

5 Conclusions

Generally, respondents fall into the general pattern of SNSs use from the way they manifest their *engagement*: they are influenced by the ads on the networks, they shop online, and they do this because they associate networks with certain benefits: consumers advertise for their favorite brand and create and distribute content in order to promote their favorite brands. In the case of entrepreneurs, 67% of them fall into the general pattern in terms of engagement: they are present on at least two social networks, they use at least two functions of each network to promote their product. However, there are a significant number of respondents (13) who choose not to use social networks for their businesses, for various reasons. In their case, the lack of engagement on social networks for the benefit of their businesses translates into a source of *vulnerability*.

Regarding the *lack of trust* shown by respondents against social networks, we note that our study does not confirm the findings of specialized studies in the field that show that trust among users is generated, mainly, by the uncertainty regarding the protection of personal data or privacy (Markos et al. 2012). As consumers, our respondents feel manipulated (25%) and have negative feelings when using SNSs. Instead, for entrepreneurs, the lack of trust is evidenced by non-participation (33%) and their belief that presence on social networks cannot bring any benefit to them.

The dichotomous nature of human behavior is manifested in the *skill level* related to the use of SNSs. Thus, if respondents-consumers prove to have the technological skills to make their presence felt on the SNSs and take advantage of the benefits offered by them, as entrepreneurs, the same respondents see themselves as having moderate skills and some even no skills in using networks in the benefit of their businesses. From this point of view, we can say that those entrepreneurs deprive themselves from the access to resources and opportunities, although this behavior is somewhat justified if we take into account that these entrepreneurs are still in the start-up phase.

Moreover, we found that there is no correlation between the level of specific benefits brought by social media to consumers and the level of specific benefits brought by social media to entrepreneurs.

In this context, we can state that our students use social networks to express their assumed identities differently, each type of identity having certain features. However, regardless of their assumed identity, they are distrustful when using networks,

reluctance we identified as lack of trust and designated as *Achilles heel*. If we remember the fight between David and Goliath (Gladwell 2013), we can say that the users' lack of trust is exactly what can "kill" the powerful Goliath – social networks in our case.

Our study's limitations are two, namely: (1) the small number of respondents we identified as suited for this type of research; (2) the fact that they belong to the same university, limitations that make impossible the generalization of results. As future research directions, we consider useful: (1) to structure subjects on type of consumers/businesses; (2) to launch comparative studies on two directions, namely: with consumers/entrepreneurs in the same age category, but without university education; or with other age categories.

Appendix

See Tables 12, 13 and 14.

Table 12. Identification of the position of each element of the range of answers

Range of outputs	Position
Not at all	NAA (1)
Very little	VL (2)
Little	L (3)
Medium	MD (4)
Much	M (5)
Very much	VM (6)

Table 13. Determination of the rank output elements

Entrepreneurs	Position	1	2	3	4	5	6
	Repetitive items	13	0	3	4	12	8
	Rank	7	0	15	18.5	26.5	36.5
Consumers	Position	1	2	3	4	5	6
	Repetitive items	0	2	6	17	11	4
	Rank	0	1.5	5.5	17	31	38.5

Table 14. Operations for determining the Spearman coefficient

	Rank ₁	Rank ₂	Rank ₁ *Rank ₂	Rank ₁ ²	Rank ₂ ²
	36.5	17	620.5	1332.25	289
	18.5	38.5	712.25	342.25	1482.25
	7	17	119	49	289
	18.5	5.5	101.75	342.25	30.25
	7	31	217	49	961
	18.5	17	314.5	342.25	289
	7	17	119	49	289
	36.5	17	620.5	1332.25	289
	26.5	5.5	145.75	702.25	30.25
	15	31	465	225	961
	7	17	119	49	289
	18.5	17	314.5	342.25	289
	7	31	217	49	961
	36.5	1.5	54.75	1332.25	2.25
	15	38.5	577.5	225	1482.25
	26.5	17	450.5	702.25	289
	7	31	217	49	961
	26.5	31	821.5	702.25	961
	26.5	5.5	145.75	702.25	30.25
	15	31	465	225	961
	26.5	17	450.5	702.25	289
	26.5	5.5	145.75	702.25	30.25
	26.5	38.5	1020.25	702.25	1482.25
	26.5	31	821.5	702.25	961
	36.5	31	1131.5	1332.25	961
	36.5	17	620.5	1332.25	289
	26.5	17	450.5	702.25	289
	26.5	17	450.5	702.25	289
	36.5	17	620.5	1332.25	289
	26.5	31	821.5	702.25	961
	36.5	5.5	200.75	1332.25	30.25
	26.5	5.5	145.75	702.25	30.25
	36.5	17	620.5	1332.25	289
	7	17	119	49	289
	7	31	217	49	961
	7	38.5	269.5	49	1482.25
	7	17	119	49	289
	7	17	119	49	289
	7	1.5	10.5	49	2.25
	7	31	217	49	961
Total	443.5	403	8571	12622.25	10463.5

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