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Determinants of Use of Social Media Tools in Retailing Sector

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Abstract

The adoption of Social Media as part of organizational processes has been explosive during the last years. While decisions related to the adoptions of such technologies seem to be taken under competitive pressure there is little known as to the management attitudes and perceptions in the use of these technologies. The purpose of this article is to study factors affecting the acceptance of Social Media as a business strategy by Spanish retailers. A model that explains the adoption of Social Media tools has been created, on the basis of a technology acceptance model by adding the perceived strategic value, generating an extended model useful for academics and practitioners. The results confirm the central role played by the perceived ease of use of Web 2.0 in the process of its adoption as a business tool.

Keywords: Social media, Web 2.0, Extended technology acceptance model (ETAM), Perceived strategic value, Retailing sector

1 Introduction

The term Social Media refers to online applications allowing not only peer-to-peer communication and interaction but also allowing the creation, review, editing and dissemination of User-Generated Content (UGC). The Social Media is the backbone of what is widely known as Web 2.0 [56] namely the current stage of interactive Internet (from 2005 to today). During the previous stage of the Internet (Informational Internet or Web 1.0), the online content creation was the privilege of organizations owning and controlling the online applications, the web sites. Corporate web sites presented businesses and organizations in general with a new way to connect with their customers and customers had a new tool available for accessing remote markets, even on a global scale. First generation (or Web 1.0) web sites were pursuing various objectives: informational, promotional, relational or transactional [11] but interaction with the users was limited; in this broadcasting stage of the web [19] the online customers or users were simple content consumers [14]. New technologies developed during the 90s and the first years of the 21st century presented the public with new opportunities to easily find and use online applications allowing the creation of online profiles, customized personal web sites, online networking with peers and most importantly allowing to the creation, review, editing and dissemination of content [10]. The combination of UGC and the large scale adoption of Web 2.0 applications (commonly called Social Media) has brought about a revolution not only in the way people communicate but also in the way customers make decisions on purchasing or using products and services. Social Media applications take a variety of forms and present users with a range of options for creating and exchanging content: Blogs, social networking sites, online communities, online games, video and photo sharing sites, podcasting and online collaborating tools are some of the well-known types of Social Media. In many studies the terms Web 2.0 and Social Media are used interchangeably but in this article we refer to Social Media as *Web 2.0 applications* rather than as Web 2.0.

Online Peer-to-Peer collaboration by means of social media connections resulted unique in the evolution of marketing customer empowerment; marketers responded by adopting social media based marketing tactics. The transformation of the marketing practice as a result of the Social Media phenomenon is already an interesting and evolving research issue [40]. In particular the social networking sites like Facebook, LinkedIn, Twitter and Google+ and online communities like YouTube, Flickr, Wikipedia, Digg and Delicious attract increasingly attracts research interest [6], [27], [47].

Yet despite the increasing research attention, the adoption criteria and motives for adoption of social media as marketing tools is an issue that so far has attracted less academic attention. This study aims at filling part of this research gap by testing the aptitude of the Technology Acceptance Model (TAM), with the dimension of perceived strategic value added to it, to explain the adoption of Social Media applications as part of the marketing toolbox of retailers and identify the main parameters influencing the adoption process. The study can also serve as a model for explaining the adoption of Social Media strategies by other branches or industries. The purpose of this research is also to identify the Social Business Readiness within the particular industry in Spain, a country with very high penetration of social networking sites. According to a study of ComScore Inc (Site 1), Spain is the country with the highest reach of social networking sites in Europe among Internet users (98.2%). Practical implications are discussed; the findings offer companies new perspectives on the issue and identify ways that Social Media could be engaged as channels of information and communication as part of the marketing management process.

2 Social Media as Marketing Tools

Based on the short history of this field, it is relevant to point out that the Social Media was presented to the world with new forms of peer-to-peer communication; although with more importance, this new technology prompted a unique market power migration. For the first time in the commercial history, producers of products and services were not any more the party in control of the communication process. Traditional mass communication channels like television, radio, press and even direct channels like mailing and telemarketing begun losing ground in a rhythm that was controlling both the medium and content the empowered consumer took over the wheel of the commercial process. The Social Media based customer empowerment has radically changed the way people make purchasing decisions [13] and gave a serious blow to the power and practice of the traditional marketing [5], [37], [73].

Marketers became aware of the customer empowerment danger [72] and the power shift to the direction of the consumer [19]; retailers quickly devised ways of engaging the Social Media as part of their marketing strategy [12], [37], [51].

The growing research interest in this area is justified. The Social Media adoption is characterized by the online public staggering levels of hundreds of millions of people worldwide having adopted them as part of their daily life [67], and also as part of their total shopping experience. A report of ACL and Nielsen Online in April 2011 (Site 2) states that 27 million pieces of online content are shared daily in the US while 60% of these messages specifically mention a brand or product name. In the same report we read also that 89% of Internet users use social networking sites to share content. Message boards and blogs were also found to be an important media for sharing content with friends, family, colleagues and the public. Regarding the adoption of Social Media as marketing tools, a study of eMarketer

(Site 3) from November 2010 among US companies with more than 100 employees 80% of them would use some type of Social Media in 2011 and 88% in 2012. Penetration rates differ per country but across the board there is a tendency for fast adoption. The integration level of Social Media in different business activities varies but Marketing and PR/Communications are the main areas where Social Media are engaged by businesses.

The high adoption rates of the Social Media by the public and businesses justify particular interest in the adoption process and in particular on the motives of businesses to adopt these as part of their organizational strategy with emphasis on marketing-related activities. [54] offered a detailed view on the dynamics of Social Network and Content Sharing services, showing how the revenue strategies are tightly linked to the technological delivery channel. This area is becoming even more interesting given the continuous developments and evolution of the behavioral and technology domains. The fast public adoption of mobile Internet terminals like smartphones and tablets means that users have by now ubiquitous connectivity and access to their social networks on a permanent basis [54], [67].

Online social contacts and content creation in the Social Media domain play an important role in the decision making process of customers and as mentioned earlier the commercial adoption of Social Media marketing strategies follows an increasing curve. Traditional retailing firms observe an increasing turnover from their online activities, often at the cost of their traditional ones; this fact is not reflected only in changing revenue sources but also on shifting marketing budgets from traditional to online media.

The adoption process of online commerce by the users is an issue that has been extensively discussed in the literature. In many studies the adoption process is explained as technology adoption by means of the Technology Adoption Model (TAM) [16].

Nevertheless, from an offer perspective, the literature about the Social Media adoption by online retailers is slower. In retailing sector, the functionality of a website design [24], [26] determines significantly both user perceptions and behaviors [3], [50], [53]. In fact, the motives of consumers to adopt social technologies are also an issue of increasing research focuses [46].

3 Technology Acceptance Model and Perceived Strategic Value in a Social Media Context: The ETAM Approach

In the last twenty years, several researchers have focused on identifying variables that influence the acceptance behavior of Information and Communication Technologies (ICT), by developing and testing different theoretical models and proposals. The TAM, introduced by [16]-[17], is one of the most widely accepted approaches to explain the adoption of any technology [20], [39], [44], [52], [75]-[76]. This model suggests that perceived usefulness and ease of use are the main beliefs about a new technology that influence the attitude towards their use and predict the intentions to use and adopt this technology; the TAM is the most widely used theoretical concept in this area.

The main TAM constructs [16] are the attitude, perceived usefulness and ease of use. According to [25], the attitude is "a learned predisposition to respond favorably or unfavorably toward something" (p. 216). Perceived usefulness is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" [16] p. 320. The other factor in TAM model is the perceived ease of use, which refers to "the degree to which a person believes that using a particular system would be free of effort" [16] p. 320.

The TAM approach is flexible enough to be extended by including other variables which help explain the acceptance and have not been incorporated into the original model [22], [31], [35], [38]-[39], [43], [75]. So, it is possible to incorporate additional constructs such as perceived strategic value as in our research, since it is an important variable. Strategic value is the summation of perceived benefits from (Social Media) minus the summation of perceived cost over a period of time [41]. In the literature review has been demonstrated that perceived strategic value influence on the adoption of technologies (e.g. [32]). So, the version Extended of TAM (ETAM) approach is analyzed in this study.

3.1 Research Hypotheses Concerning the ETAM Analysis

TAM model analyzes the relationship between attitude and intention to use an online system. It has been used by various researchers in different contexts: Adoption of information technology and information systems, Web, e-commerce, e-mail, and the relevant for our study, some Web 2.0 tools. A strong and widespread positive effect of the attitude on the intention to use has been obtained in different previous studies [52], [76]. It leads us to think that the same mechanics will operate in the relationship between attitude and intention to use Web 2.0 tools by companies. Then:

H1. The attitude toward Web 2.0 tools has a positive and significant effect on the intention to use these applications.

According to [7], the ease of use has a double impact on the attitude, because of self-efficacy and instrumentality. The efficiency or effectiveness is one of the factors of intrinsic motivation for a person [4]. Therefore this effect of the

ease of use is directly related to the attitude. On the other hand, the ease of use can also be instrumental, contributing to increase the performance. This increase means less effort, thanks to the ease of use, allowing more work to get done with the same effort. This instrumental effect on the attitude occurs via perceived usefulness, as the original TAM model postulates [7]. Furthermore, this effect has been amply demonstrated in empirical studies [16]-[17], [45], [58], [63], [69], [75], [77]. Therefore, we propose the following hypotheses.

H2. The perceived ease of use of Web 2.0 tools has a positive and significant effect on the attitude toward these applications.

H3. The perceived ease of use of Web 2.0 tools has a positive and significant effect on the perceived usefulness of using them.

Davis [16] suggests an indirect relationship between perceived ease of use and the intention to use, mediated by the perceived usefulness. In addition, several studies confirm this indirect relationship [17], [38], [70]. However, recent empirical studies have found that perceived ease of use has a positive and significant effect on the intention to use, defined as wish to use [42], [58]-[59], [75]. When the interaction with the technology is easier, the feeling of efficiency by the user should be greater and hence the intention to use it should be greater [75]. Based on the theoretical assumption, we propose the following hypothesis:

H4. The perceived ease of use of Web 2.0 tools has a positive and significant effect on the intention to use them.

Some TAM-based studies have included the current use of technology [16], [64] and others have introduced the concept of intention to use [48]. Other authors have introduced both concepts, and suggest a causal relationship between them [17], [64]-[65], [69]. In this line, we have introduced both final variables, as we believe that the intention to use variable acts as mediator between the effect exerted by the perceptions (ease of use and perceived usefulness) and final use. Therefore, we propose the following hypothesis:

H5. The intention to use Web 2.0 tools has a positive and significant effect on the final use of these applications.

In the TAM, the ease of use and the perceived usefulness are considered beliefs that are postulated a priori, and they are considered constructs which determine the attitude [17]. This assertion is based on a pillar of the Theory of Reasoned Action (TRA) arguing that attitudes toward a behavior are influenced by relevant beliefs [25], [16]-[17]. Furthermore, there is empirical evidence of these relationships [17], [63], [66], [75], [77]. Therefore, we propose the following hypothesis:

H6. The perceived usefulness of Web 2.0 tools has a positive and significant effect on the attitude toward these applications.

In the TAM the perceived usefulness directly affects to the use through the intention to use. [17] argue that although the direct effect of a belief (i.e. the perceived usefulness) on the intention to use is contrary to the premises of the TRA, studies provide the theoretical justification, as well as empirical evidence of direct links between perceived usefulness and intention to use [17], [45], [58], [69]. Furthermore, [44] indicate that the relationship between the perceived usefulness and intention to use in the context of the TAM is statistically supported, since there are 74 studies that show a significant relationship between both variables.

The relationship between perceived usefulness and intention to use is based on the idea that people create their intentions toward the use thinking about how to improve the performance of their work, beyond the positive or negative feelings that may have toward their own use (attitude). The reason is that companies will use this innovation (in our case any Web 2.0 tool), only if they perceive that the use will help them achieve their goals. Therefore, we propose the seventh hypothesis:

H7. The perceived usefulness of Web 2.0 tools has a positive and significant effect on the intention to use them.

According with [57], Diffusion of Innovation theory suggests that individuals or decision makers within an organization will evaluate an innovation's characteristics (relative advantage, compatibility, complexity, trainability, and observation) and their perception of these characteristics will determine whether that individual or organization will adopt this innovation [23]. Perceptions also influence behavioral intentions of individuals [17]. Results from prior research involving such a causal link suggest a strong and positive connection between managers' favorable perceptions of other types of IT and adoption [36]. In the case of an organization, strategic value can be determined by a summation of perceived benefits minus a summation of perceived costs over a period of time [57].

Support for the causal link between perceptions of strategic value and adoption comes from different studies that associate individual perceptions and behavior [32]. [32], [62] demonstrated that the perceived strategic value of e-commerce influences managers' attitudes toward e-commerce adoption. When a new technology has a high strategic value to the firm, thus ensuring adequate investment support and management attention on the part of the firm [74], and thus more intention to use. Then, we propose the following hypothesis:

H8. The perceived strategic value of SNS has a positive and significant effect on the intention to use Web 2.0 tools.

Following the assumptions explained in the previous section, we obtain an initial model (Figure 1) which tries to explain the adoption of Web 2.0 tools by firms. Specifically, it is a TAM model that we have added the perceived strategic value variable.

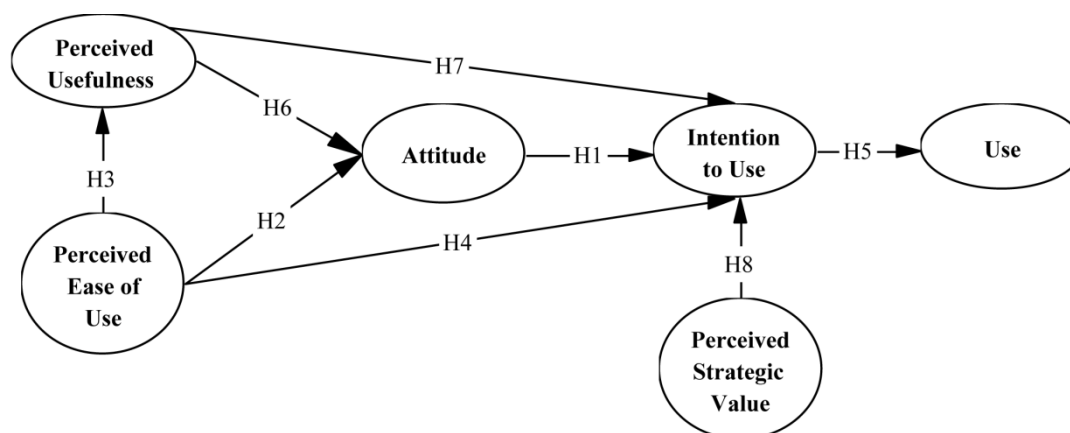


Figure 1: Proposal of a model to explain the adoption of social media by retailers: ETAM analysis

4 Methodology

In order to evaluate the adoption of Web 2.0 tools by companies, we developed an online questionnaire for data collection. Companies were contacted by phone calls aiming at informing companies of the study and asking for their cooperation. The participants were marketing managers. The study population consists of large (more than 250 employees, more than 50 million Euros of sales), medium (between 50 and 250 employees, between 10 and 50 million Euros of sales), and small (less than 50 employees, less than 10 million Euros of sales) companies from the Spanish retail sector (NACE2, 47). To select the companies that meet these requirements, we made use of the AMADEUS database edited by Bureau Van Dijk, which contains financial information on over 10 million public and private companies in 41 countries. Finally, we have obtained a sample of 90 companies, among them are companies using and not using Web 2.0 tools. Specifically, 29.2% of companies surveyed are large, 27% are medium, and 43.8% are small. Most of the sample is small and medium enterprises (SME), as in the Spanish population.

The constructs used in our study were adapted from previous studies and measured by multiple items five-point Likert-type scales, with the exception of use construct (Table 1).

5 Results

A structural equation modeling (SEM), specifically partial least squares (PLS), is proposed to assess the measurement and structural model. We have used this technique because it is more appropriate for exploratory research and studies with small sample sizes [28], and because the PLS algorithm shows greater convergence in its simplicity, offering fewer restrictions on the sample size and data normality [9]. In addition, [60] note that PLS is more appropriate when the number of observations is below 250, as in our case.

SmartPLS 2.0 software was used to analyze the data [61]. The stability of the estimates was tested via a bootstrap re-sampling procedure (500 sub-samples).

A PLS model is analyzed in two stages: First, the assessment of the reliability and validity of the measurement model, and second, the assessment of the structural model [1].

5.1 Reliability and Validity Assessment

To evaluate the adequacy of the instrument, this research fulfilled the criteria of internal reliability, convergent validity and discriminant validity. Table 2 displays the analysis results of reliability and convergent validity. The Cronbach's alpha and composite reliability (CR) ensure the reliability of scales. Ranging from 0.9106 to 0.9772, all Cronbach's alpha scores in this study were above the recommended value of 0.7 for scale robustness [55]. Composite reliabilities in the proposed model ranged from 0.9240 to 0.9887 and exceeded the threshold of 0.7 recommended by [55]. Moreover, Average Variance Extracted (AVE) was also calculated for each construct, resulting in AVEs greater than 0.5 [29]. Therefore, the six scales demonstrate acceptable levels of reliability.

Table 1: Items included in the model

Items		Source
<i>Perceived Usefulness</i>		
PU1	I think that using the Social Media improves job quality	[16]-[18], [49], [71], [75]
PU2	I think that using the Social Media increases productivity	
PU3	I think that using the Social Media enhances our effectiveness on the job	
PU4	I think that the Social Media are useful in my job	
PU5	Using Social Media raises our chances to increase our profits	
PU6	I think that the advantages of using the Social Media outweighs the disadvantages	
PU7	Overall, I think that using the Social Media is advantageous to our company	
PU8	I think that using Social Media enables us to access a lot of information	
PU9	I think that using the Social Media provides us with information that help us make better decisions	
<i>Perceived Ease of Use</i>		
PEOU1	I think that learning to work with the Social Media is easy	[16]-[18]
PEOU2	I think that it is easy to get the Social Media do what we want it to do	
PEOU3	I think that interacting with the Social Media is clear and understandable	
PEOU4	I think that it is easy for us to become skillful at using the Social Media	
PEOU5	I think that it is possible to use the Social Media without expert help	
PEOU6	Overall, I think that Social Media are easy to use	
<i>Attitude</i>		
A1	I think that using the Social Media is a good idea	[16]-[18], [25], [53]
A2	I think that using the Social Media is a wise idea	
A3	I think that using the Social Media is a positive idea	
A4	I like the idea of using the Social Media	
<i>Intention to Use</i>		
IU1	It is probable that I will use or continue using the Social Media	[16]
IU2	I intend to begin or continue using the Social Media	
IU3	I will frequently use Social Media in the future	
IU4	I will recommend others to use the Social Media	
<i>Use</i>		
USE1	On the average, how frequently do you use the Web 2.0?	[16]-[18], [71]
USE2	How frequently do activities related to organizational of Social Media take place?	
<i>Perceived Strategic Value</i>		
PSV1	Reduce costs of business operations	[32]
PSV2	Improve customer services	
PSV3	Improve distribution channels	
PSV4	Obtain operational benefits	
PSV5	Provide effective support role to operations	
PSV6	Increase ability to compete	
PSV7	Provide to managers better access to information	
PSV8	Provide managers access to new methods and models when making decisions in functional areas	
PSV9	Improve communication within the organization	
PSV10	Improve the productivity of managers	
PSV11	Support strategic decisions of managers	
PSV12	Provide information for strategic decisions	

Content validity is a characteristic of items that are representative and drawn from an established literature [15]. All the items included in the scales have been analyzed in the academic literature on Internet and for this reason we consider that content validity is ensured [29]. Although due the lack of valid scales adapted to Web 2.0 adoption, it was necessary to adapt the initial scales (Table 1).

Table 2: Internal consistency and convergent validity

Construct	Indicator	Loading	t-value (bootstrap)	Crobach's alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Attitude (A)	A1	0.9454	69.9622	0.9476	0.9623	0.8645
	A2	0.9372	53.3846			
	A3	0.9441	65.0510			
	A4	0.8915	18.3255			
Perceived Ease of Use (PEU)	PEOU1	0.8306	15.0491	0.9286	0.9438	0.7376
	PEOU2	0.7450	11.2387			
	PEOU3	0.9170	49.9155			
	PEOU4	0.8918	34.2073			
	PEOU5	0.8698	27.9037			
	PEOU6	0.8877	22.5731			
Intention to USE (IU)	IU1	0.9232	48.0146	0.9382	0.9563	0.8457
	IU2	0.9606	123.7359			
	IU3	0.9533	90.3288			
	IU4	0.8361	12.4999			
Perceived Usefulness (PU)	PU1	0.7712	12.3437	0.9267	0.9388	0.6325
	PU2	0.7706	11.6113			
	PU3	0.7529	11.2419			
	PU4	0.8918	35.4472			
	PU5	0.8378	21.1738			
	PU6	0.8638	34.6586			
	PU7	0.8888	39.2946			
	PU8	0.6489	6.2256			
	PU9	0.6946	7.8670			
Use	USE1	0.9878	241.4389	0.9772	0.9887	0.9776
	USE2	0.9897	352.9952			
Perceived Strategic Value (PSV)	PSV1	0.6661	10.6170	0.9106	0.9240	0.5046
	PSV2	0.6380	7.1858			
	PSV3	0.7117	9.2991			
	PSV4	0.7444	10.7867			
	PSV5	0.7007	8.4808			
	PSV6	0.6979	9.4976			
	PSV7	0.7661	17.1678			
	PSV8	0.8085	23.1165			
	PSV9	0.7531	19.7420			
	PSV10	0.6460	8.9478			
	PSV11	0.6703	8.6192			
	PSV12	0.7011	10.1652			

Convergent validity is verified by analyzing the factor loadings and their significance. The individual item loadings in our model are higher than 0.6 [2], and the average of the item-to-factor loadings are higher than 0.7 [33]. Also, we have checked the significance of the loadings with a re-sampling procedure (500 sub-samples) for obtaining t-statistic values. They are all significant ($p < .001$). This finding provides evidence supporting the convergent validity of the indicators [1].

Discriminant validity indicates the extent to which a given construct is different from other latent variables. This research adopted [29] criteria of discriminant validity to examine whether the square root of the AVE for each construct exceeds the correlation shared between the construct and other constructs in the model. As shown in Table 3, all diagonal values exceeded the inter-construct correlations, thereby demonstrating adequate discriminant validity of all constructs.

Table 3: Discriminant validity of the theoretical construct measures

		PEOU	IU	PU	USE	PSV
A	0.9298					
PEOU	0.5745	0.8588				
IU	0.8217	0.6008	0.9196			
PU	0.7002	0.4125	0.7200	0.7953		
USE	0.3601	0.1482	0.4288	0.5260	0.9887	
PSV	0.6233	0.4561	0.7262	0.7676	0.3903	0.7103

Diagonal elements are the square root of average variance extracted (AVE) between the constructs and their measures. Off-diagonal elements are correlations between constructs.

5.2 Structural model

Table 4 display exhibits the hypotheses, path coefficients, t-values, the variance explained (R^2) and the Q^2 statistic.

Table 4: Structural model results

Hypotheses	Path	Path coefficient	t-value (bootstrap)
H1	Attitude → Intention to Use	0.4931*	5.3628
H2	Perceived Ease of Use → Attitude	0.3442*	3.1930
H3	Perceived Ease of Use → Perceived Usefulness	0.4125*	4.5969
H4	Perceived Ease of Use → Intention to Use	0.1514*	2.5604
H5	Intention to Use → Use	0.4288*	5.2882
H6	Perceived Usefulness → Attitude	0.5582*	6.5567
H7	Perceived Usefulness → Intention to Use	0.1067 ^{ns}	1.0235
H8	Perceived Strategic Value → Intention to Use	0.2679*	2.5591
R^2 (Attitude)=0.5886; R^2 (Intention to Use)=0.7675; R^2 (Perceived Usefulness)=0.1701; R^2 (Use)=0.1838. * $p < 0.01$; ^{ns} =not significant			
Q^2 (Attitude)=0.4960; Q^2 (Perceived Usefulness)=0.0926; Q^2 (Intention to Use)=0.6288; Q^2 (Use)=0.1685 > 0			

Figure 2 shows a synthesis of the results obtained. Consistent with [8], bootstrapping (500 re-samples) was used to generate t-values. Support for each general hypothesis can be determined by examining the sign and statistical significance of the t-values.

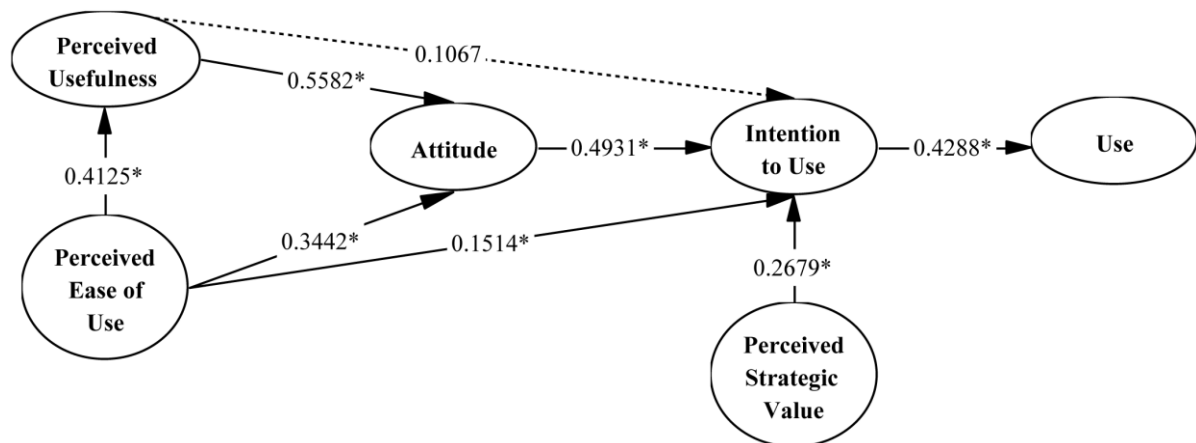


Figure 2: Estimation of research model

To assess the predictive ability of the structural model we followed the approach proposed by [21] that the R^2 value (variance accounted for) of each of the dependent constructs exceed the 0.1 value. Table 4 shows that the R^2 values in the dependent variables are higher than the critical level mentioned. Another test applied was the Stone-Geisser test of predictive relevance (Q^2). This test can be used as an additional assessment of model fit in PLS analysis [68], [30]. Models with Q^2 greater than zero are considered to have predictive relevance [8]. In our case Q^2 is positive for all predicted variables.

The attitude was found to be an important and direct influence of the intention to use Social Media as marketing tools ($\beta=0.4931$, $p < 0.01$). Therefore H1 is accepted. This fact indicates that the personal attitudes of marketing executives can explain the different degree of intention to adopt Social Media as marketing tools.

The results confirm the central role played by the perceived ease of use of Web 2.0 in the process of its adoption as a business tool. So we can see how this variable has significant impacts on attitude toward the use of Web 2.0 tools ($\beta=0.3442$, $p < 0.01$) and perceived usefulness ($\beta=0.4125$, $p < 0.01$) Therefore H2 and H3 are supported.

The results confirm also the (somehow weaker) yet clear relation between the perceived ease of use and intention to use ($\beta=0.1514$, $p < 0.01$). In that respect H4 is accepted. Perceived ease of use can be therefore by itself an important motive for businesses to adopt Social Media as marketing tool.

The results confirm that the intention to use has significant impacts on the final use of these Web 2.0 tools ($\beta=0.4288$, $p > 0.01$). H5 is therefore accepted. That means that for all intents and purposes managerial intention to use Social Media as marketing tools are very important for the adoption of these strategies and therefore it is important that

providers of such applications are able to offer products that meet the criteria and the motives for creating positive intentions.

The perceived usefulness influences has a strong and direct effect on the attitude ($\beta=0.5582$, $p<0.01$), therefore H6 is accepted. The finding is in line with earlier findings on the adoption of information systems but in this case (as also in the previous hypotheses) the issue is the adoption of a strategy.

The results do not indicate a substantial direct effect between perceived usefulness and intention to use ($\beta=0.1067$, $p>0.05$), therefore H7 is rejected. The effect of perceived usefulness on the intention to use is indirect, through the impact on the attitudes (H2).

The research also shows how the perceived strategic value of Web 2.0 has a central role in their willingness to become users of these tools, to verify the influence of this variable on the intention to use ($\beta=0.2679$, $p<0.01$). Therefore H8 is accepted. This finding indicated that businesses with clear strategic objectives oriented to efficiency, profitability, customer service and productivity increase are likely to identify the need for engaging Social Media as marketing tools and implement this as well.

The above results indicate that the TAM was to a large extend confirmed as valid to model the determinants of the adoption of Social Media as business tool.

6 Conclusions

The TAM is usually testing the adoption process of technologies but in this case the aptitude of TAM in explaining the adoption of a business strategy was tested. The results of this research demonstrate that it is possible the extension of the TAM to explain the adoption of Web 2.0 applications (Social Media) as a business tool.

The direct influence of perceived ease of use on the intention to use, and indirectly through changes in the attitude component of the TAM model, and its influence on perceived usefulness, highlights the central role of the fact that an individual perceives the Social Media as an instrument which is no complex to use as a business tool in the adoption. The relevance of this variable has been the focus of extensive research in the field of usability, navigability and interactivity. The functionality of a website design will determine significantly both user perceptions and behaviors.

TAM models have always viewed technology from a utilitarian perspective, that is, a technology will be used in the extent to which a person believes will serve to improve his/her performance in a particular activity [16]. This result has not been fully confirmed in this study if one considers the role of perceived usefulness in the model; in this study this variable has an indirect effect on the intention to use through attitude, but not supported the hypothesis that suggests this direct relationship.

The practical implications of this study are that the Social Media as marketing strategy are viewed in the field in a very positive way. The perception of most managers is that adoption of Social Media (which most of them are using privately as well) as part of their strategy will yield many advantages for their organization. This attitude is quite interesting and should be further investigated; it seems that the attitude and the willingness to adopt and use the Social Media as business tools is facilitated by the fact that many of these managers are already private users of social media.

This assumption (if confirmed) can have several positive implications for businesses: these could see increasing productivity and effectiveness on the ground by the blurring of the border between use of technology for private and business purposes. Recent findings confirm such a trend. According to a recently released report by [34] the use of managers' personal consumer devices and even personal data for work is a practice that gains popularity in the workplace. In this study was even found that 36% of the managers do not worry about the organization's IT policies and use the technologies they need for their work while 45% of them even believe that their personal hardware devices and software applications are more useful than the ones provided by work.

7 Limitations and Future Research Lines

One of the limitations of the study is the size of our sample and the fact that the study took place in one country, Spain. This means that one has to be cautious when extrapolating the results of the study. Moreover, TAM model could be obsolete in the Social Media context due to the fact that new technologies have improved quickly. The use of an Extended TAM could minimize this limitation. Nevertheless, this aspect should be taken into account as limitation in this research. Since the purpose of this study was explorative and the main purpose was to test the ability of the TAM to explain a (technology-based) business strategy, this study must be seen as a basis for future research in more countries or market.

As to issues for future research one interesting domain is the identification of the relation between the private use of certain technologies like Social Media and the intention to use and finally adopt these technologies for business

purposes. Identification of positive and negative effects of such attitudes will help academics to better understand the effects of new technologies on management decision making process but also will help practitioners to review their technology adoptions strategies, develop schemes that motivate their employees to use these technologies in an efficient way and last but not least to develop internal guidelines that will minimize potential dangers from the emerging blurring of the boundary between private and business use of technology.

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Websites List

Site 1: Comscore.

http://www.comscore.com/Press_Events/Presentations_Whitepapers/2011/it_is_a_social_world_top_10_need-to-knows_about_social_networking

Site 2: AOL Inc.

<http://corp.aol.com/2011/04/28/aol-research-content-is-the-fuel-of-the-social-web/>

Site 3: eMarketer.

<http://www.emarketer.com/blog/wp-content/uploads/2010/12/120276.gif>

References

- [1] E. Anderson and D.W. Gerbing, Structural equation modeling in practice: A review and recommended two-step approach, *Psychology Bulletin*, vol. 103, no. 3, pp. 411-423, 1988.
- [2] R.P. Bagozzi and Y. Yi, On the evaluation of structural equations models, *Journal of Academy of Marketing Science*, vol. 16, no. 1, pp. 74-94, 1988.
- [3] S. Baloglu and Y.A. Pekcan, The website design and Internet site marketing practices of upscale and luxury hotels in Turkey, *Tourism Management*, vol. 27, no. 1, pp. 171-176, 2006.
- [4] A. Bandura, Self-Efficacy mechanism in Human Agency, *American Psychologist*, vol. 37, no. 2, pp. 122-147, 1982.
- [5] J. Bernhof and C. Li, Harnessing the power of the oh-so-social web, *MIT Sloan, Management*, vol. 49, no. 3, 36-42, 2008.
- [6] D.M. Boyd and N.B. Ellison, Social network sites: Definition, history, and scholarship, *Journal of Computer-Mediated Communication*, vol.13, no. 1, pp. 2010-230, 2007.
- [7] J.A. Castañeda, F. Muñoz and T. Luque, Web acceptance aodel (WAM): Moderating effects of user experience, *Information and Management*, vol. 44, no. 4, pp. 384-396, 2007.
- [8] W.W. Chin, The partial least squares approach to structural equation modeling, in *Modern Methods for Business Research* (G.A. Marcoulides, Ed.). Mahwah, NJ: Lawrence Erlbaum Associates, 1988, pp. 295-236.
- [9] W.W. Chin, B.L. Marcolin and P.R. Newsted, A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study, *Information System Research*, vol.14, no.2, pp. 189-217, 2003.
- [10] R. Clarke, Web 2.0 as syndication, *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 3, no. 2, pp. 30-43, 2008.
- [11] E. Constantinides, The 4S web-marketing mix model, *Electronic Commerce Research and Applications*, vol. 1, no. 1, pp. 57-76, 2002.
- [12] E. Constantinides, C. Lorenzo and M.A. Gómez, Social media: A new frontier for retailers?, *European Retail Research*, vol. 22, no.1, pp. 1-28, 2008.
- [13] E. Constantinides and S. Fountain, Web 2.0: Conceptual foundations and marketing issues, *Journal of Direct, Data and Digital Marketing Practice*, vol. 9, no. 3, pp. 231-244, 2008.
- [14] G. Cormode and B. Krishnamurthy (2008, June) Key differences between web 1.0 and web 2.0. *First Monday*. [Online]. Available: <http://firstmonday.org/article/view/2125/1972>
- [15] L.J. Cronbach, Test validation, in *Educational Measurement* (R.L. Thorndike, Ed.). Washington: American Council of Education, 1971, pp. 443-507.
- [16] F.D. Davis, Perceived usefulness, perceived ease of use and user acceptance of Information Technology, *MIS Quarterly*, vol. 13, no. 3, pp. 319-340, 1989.
- [17] F.D. Davis, R.P. Bagozzi and P.R. Warshaw, User acceptance of computer technology: A comparison of two theoretical models, *Management of Science*, vol. 35, no. 8, pp. 982-1003, 1989.
- [18] F.D. Davis, R.P. Bagozzi and P.R. Warshaw, Extrinsic and intrinsic motivation to use computers in the workplace, *Journal of Applied Social Psychology*, vol. 22, no. 14, pp. 1111-1132, 1992.
- [19] J. Deighton and L. Kornfeld, Interactivity's unanticipated consequences for marketers and marketing, *Journal of Interactive Marketing*, vol. 23, no. 1, pp. 4-10, 2009.

- [20] X. Deng, W. Doll, A. Hendrickson, and, J. Scazzero, A multigroup analysis of structural invariance: an illustration using the technology acceptance model, *Information and Management*, vol. 42, no. 5, pp. 745-759, 2005.
- [21] R.F. Falk and N.B. Miller, *A Primer for Soft Modeling*. Akron: University of Akron Press, 1992.
- [22] M.S. Featherman and P.A. Pavlou, Predicting e-services adoption: A perceived risk facets perspective, *International Journal of Human-Computer Studies*, vol. 59, no. 4, pp. 451-474, 2003.
- [23] R.G. Fichman, The diffusion and assimilation of information technology innovations, in *Framing the Domains of IT Management: Projecting the Future... Through the Past* (R. Zmud, Ed.). Cincinnati, OH: Pinnaflex Education Resources, Inc., 2000, pp. 105-108.
- [24] A.M. Fiore, H.J. Jin and J. Kim, For fun and profit: Hedonic value from image interactivity and responses toward an online store, *Psychology and Marketing*, vol. 22, no. 8, pp. 669-694, 2005.
- [25] M. Fishbein and I. Ajzen, *Belief, attitude, intention and behavior: An introduction to theory and research*, Massachusetts, CA: Addison-Wesley, Reading, 1975.
- [26] C. Flavián, M. Guinalíu and R. Gurrea, The role played by perceived usability, satisfaction and consumer trust on website loyalty, *Information and Management*, vol. 43, no. 1, pp. 1-14, 2006.
- [27] J. Fogel and E. Nehmad, Internet social network communities: Risk taking, trust, and privacy concerns, *Computers in Human Behavior*, vol. 25, no. 1, pp. 153-160, 2009.
- [28] C. Fornell and F.L. Bookstein, Two structural equation models: LISREL and PLS applied to customer exit-voice theory, *Journal of Marketing Research*, vol. 19, no. 4, pp. 440-452, 1982.
- [29] C. Fornell and D.F. Larcker, Evaluating structural equations models with unobservable variables and measurement error, *Journal of Marketing Research*, vol. 18, no. 1, pp. 39-50, 1981.
- [30] S. Geisser, The predictive sample reuse method with applications, *Journal of the American Statistical Association*, vol. 70, no. 350, pp. 320-328, 1975.
- [31] M.H. Goode and L.C. Harris, Online behavioural intentions: an empirical investigation of antecedents and moderators, *European Journal of Marketing*, vol. 41, no. 5/6, pp. 512-536, 2007.
- [32] E.E. Gandon and J.M. Pearson, Electronic commerce adoption: An empirical study of small and medium US businesses, *Information and Management*, vol. 42, no. 1, pp. 197-216, 2004.
- [33] J.F. Hair, W.C. Black, B.J. Babin, R.E. Anderson, and R.L. Tatham, *Multivariate Data Analysis*. New Jersey: Prentice-Hall, Upper Saddle River, 2006.
- [34] J.G. Harris, B. Ives, and I. Junglas. (2011, October) The genie is out of the bottle: Managing the infiltration of consumer IT into the Workforce. Accenture. [Online]. Available: <http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Managing-the-infiltration-of-Consumer-IT-into-the-workforce.pdf>
- [35] P.J. Hu, P.Y.K. Chau, O.R.L. Sheng, and K.Y. Tam, Examining the technology acceptance model using physician acceptance of telemedicine technology, *Journal of Management Information Systems*, vol. 16, no. 2, pp. 91-112, 1999.
- [36] S. Jarvenpaa and B. Ives, Executive involvement and participation in the management of Information Technology, *MIS Quarterly*, vol. 15, no. 2, pp. 205-227, 1991.
- [37] A.M. Kaplan and M. Haenlein, Users of the world, unite! The challenges and opportunities of social media, *Business Horizons*, vol. 53, no. 1, pp. 59-68, 2010.
- [38] E. Karahanna and D.W. Straub, The psychological origins of perceived usefulness and ease of-use, *Information and Management*, vol. 35, no. 4, pp. 237-250, 1999.
- [39] W.R. King and J. He, Understanding the role and methods of meta-analysis in IS research. *Communications of the Association for Information Systems*, vol. 43, no. 1, pp. 740-755, 2006.
- [40] J. Kolbitsch and H. Maurer, The transformation of the web: How emerging communities shape the information we consume, *Journal of Universal Computer Science*, vol. 12, no. 2, pp. 187-213, 2006.
- [41] O. Kwun, D. Nickels, G.S. Alijani, and A. Omar, The perceived strategic value of e-commerce in the face of natural disaster: E-commerce adoption by small businesses in post-Katrina New Orleans, *International Journal of Entrepreneurship*, vol. 14, pp. 71-84, 2010.
- [42] H. Lee, Y. Lee and D. Kwon, The intention to use computerized reservation systems: the moderating effects of organizational support and supplier incentive, *Journal of Business Research*, vol. 58, no. 11, pp.1552-1561, 2005.
- [43] J.S. Lee, H. Cho, G. Gay, B. Davidson, and A. Ingraffea, Technology acceptance and social networking in distance learning, *Educational Technology and Society*, vol. 6, no. 2, pp. 50-61, 2003.
- [44] Y.C. Lee, K.A. Kozar and K.R.T. Larsen, The technology acceptance model: Past, present, and future, *Communications of the Association for Information Systems*, vol. 12, no. 50, pp. 752-780, 2003.
- [45] S.S. Liaw and H.-M. Huang, An investigation of user attitudes toward search engines as an information retrieval tool, *Computers in Human Behavior*, vol. 19, no. 6, pp. 751-765, 2003.
- [46] C. Lorenzo-Romero, E. Constantinides and M.C. Alarcón-del Amo, Consumer adoption of social networking sites: implications for theory and practice, *Journal of Research in Interactive Marketing*, vol. 5, no. 2/3, pp. 170-188, 2011.
- [47] C. Lorenzo-Romero, E. Constantinides and M.C. Alarcón-del-Amo, Segmenting the social networking sites users: An empirical study, *International Journal of Internet Marketing and Advertising*, special issue on Social Media, vol. 7, no. 2, pp. 136-156, 2012.
- [48] P. Luarn and H.-H. Li, Toward an understanding of the behavioural intention to use mobile banking, *Computers in Human Behavior*, vol. 21, no. 6, pp. 873-891, 2005.

- [49] G.S. Lynn, S.M. Lipp, A.E. Akgün, and A. Cortez, Factors impacting the adoption and effectiveness of the world wide web in marketing, *Industrial Marketing Management*, vol. 31, no. 1, pp. 35-49, 2002.
- [50] N. Mandel and E.J. Johnson, When web pages influence choice: Effects of visual primes on experts and novices, *Journal of Consumer Research*, vol. 29, no. 2, pp. 235-245, 2002.
- [51] W.G. Mangold and D.J. Faulds, Social media: The new hybrid element of the promotion mix, *Business Horizons*, vol. 52, no. 4, pp. 357-365, 2009.
- [52] S. McKechnie, H. Winklhofer and C. Ennew, Applying the technology acceptance model to the online retailing of financial services, *International Journal of Retail & Distribution Management*, vol. 34, no. 4/5, pp. 388-410, 2006.
- [53] S. Menon and B. Kahn, Cross-category effects of induced arousal and pleasure on the internet shopping experience, *Journal of Retailing*, vol. 78, no. 1, pp. 31-40, 2002.
- [54] M. Nogueira, A. Ghezzi and F. Renga, Social applications: Revenue models, delivery channels, and critical success factors - An exploratory study and evidence from the spanish-speaking market, *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 6, no. 2, pp. 108-122, 2011.
- [55] J.C. Nunnally, *Psychometric theory*. New York: McGraw-Hill, 1978.
- [56] T. O'Reilly, What is web 2.0. design patterns and business models for the next generation of software, *Communications and Strategies*, vol. 65, no. 1, pp. 17-37, 2007.
- [57] L. Pham, L.N. Pham and D.T.T. Nguyen, Determinants of e-commerce adoption in Vietnamese small and medium sized enterprises, *International Journal of Entrepreneurship*, vol. 15, pp. 45-72, 2011.
- [58] G. Polancic, M. Hericko and I. Rozman, An empirical examination of application frameworks success based on technology acceptance model, *Journal of Systems and Software*, vol. 83, no. 4, pp. 574-584, 2010.
- [59] T. Ramayah, Interface characteristics, perceived ease of use and intention to use an online library in Malaysia, *Information Development*, vol. 22, no. 2, pp. 123-133, 2006.
- [60] W. Reinartz, M. Haenlein and J. Henseler, An empirical comparison of the efficacy of covariance-based and variance-based SEM, *International Journal of Research in Marketing*, vol. 26, no. 4, pp. 332-344, 2009.
- [61] C.M. Ringle, S. Wende and A. Will (2005, December) SmartPLS 2.0 (Beta). Smartpls. [Online]. Available: www.smartpls.de
- [62] K. Saffu, J.H. Walker and R. Hinson, An empirical study of perceived strategic value and adoption constructs: the Ghanaian case, *Management Decision*, vol. 45, no. 7, pp. 1083-1101, 2007.
- [63] P.G. Schierz, O. Schilke and B.W. Wirtz, Understanding consumer acceptance of mobile payment services: An empirical analysis, *Electronic Commerce Research and Applications*, vol. 9, no. 3, pp. 209-216, 2010.
- [64] R. Shang, Y. Chen and L. Shen, Extrinsic versus intrinsic motivations for consumers to shop on-line, *Information and Management*, vol. 42, no. 3, pp. 401-413, 2005.
- [65] D.H. Shin, Towards an understanding of the consumer acceptance of mobile wallet, *Computers in Human Behavior*, vol. 25, no. 6, pp. 1343-1354, 2009.
- [66] D.H. Shin and W.Y. Kim, Applying the technology acceptance model and flow theory to cyworld user behavior: Implication of the web2.0 user acceptance, *CyberPsychology and Behavior*, vol. 11, no. 3, pp. 378-382, 2008.
- [67] B. Solis, *The end of business as usual: Rewire the way you work to succeed in the consumer revolution*. New Jersey: John Wiley & Sons, Inc., 2012.
- [68] M. Stone, Cross-validatory choice and assessment of statistical predictions, *Journal of the Royal Statistical Society*, vol. 36, no. 2, pp. 111-147, 1974.
- [69] B. Sumak, M. Hericko, M. Pusnik, and G. Polancic, Factors affecting acceptance and use of moodle: An empirical study based on TAM, *Informatica*, vol. 35, no. 1, pp. 91-100, 2011.
- [70] B. Szajna, Software evaluation and choice: Predictive validation of the Technology acceptance instrument, *MIS Quarterly*, vol. 18, no. 3, pp. 319-324, 1994.
- [71] T. Teo, V. Lim and R. Lai, Intrinsic and extrinsic motivation in Internet usage, *Omega International Journal of Management Science*, vol. 27, no. 1, pp. 25-37, 1999.
- [72] T. Tripp and Y. Gregoire, When unhappy customers strike back on the Internet, *MIT Sloan Management Review*, vol. 52, no. 3, pp. 34-44, 2011.
- [73] G. Urban, *Don't Just Relate - Advocate! A Blueprint for Profit in the Era of Customer Power*. New Jersey: Upper Saddle River, 2005.
- [74] L. Van den Bergue and P.D. Guild, The strategic value of new university technology and its impact on exclusivity of licensing transactions: An empirical study, *Journal of Technology Transfer*, vol. 33, no. 1, pp. 91-103, 2008.
- [75] V. Venkatesh and F.D. Davis, A theoretical extension of the Technology Acceptance Model: Four longitudinal field studies, *Management Science*, vol. 46, no. 2, pp. 186-204, 2000.
- [76] L.R. Vijayarathy, Predicting consumer intentions to use online shopping: The case for an augmented technology acceptance model, *Information and Management*, vol. 41, no. 6, pp. 747-762, 2004.
- [77] C. Yang, Y.-C. Hsu and S. Tan, Predicting the determinants of users' intentions for using YouTube to share video: moderating gender effects, *Cyberpsychology, Behavior and Social Networking*, vol. 13, no. 2, pp. 141-152, 2010.