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Twitter Acceptance: The Role of Intrinsic Motivation

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Abstract
The aim of this study has been to investigate the process of acceptance and use of technology by users, focusing on the role of intrinsic and extrinsic motivation in determining it. The key role of user's motivation in determining the usage behavior has been already investigated from previous research, but they have not focused on the process of microblogging acceptance. On the contrary of other work tools, microblogging is an informal communication medium that allows to balance work and socially life. Therefore, we believe users that use this tool, and specifically Twitter, may be more intrinsically motivated than users that use other technologies. A survey methodology was used to gather data, whilst Partial Least Squares technique has been used to analyze them. Findings show that intrinsic and extrinsic motivation positively affect behavioral intention to Twitter use, but first is more explanatory variable than second.

Keywords: Technology acceptance; Twitter; intrinsic motivation.

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Twitter acceptance: the role of intrinsic motivation

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INTRODUCTION

The aim of this study has been to investigate the process of acceptance and use of technology by users. The technology investigated is represented by Twitter, an important microblogging platform mainly used for updates of their daily activities with families, friends, and co-workers, sharing information, news, and opinions by public tweets. However, Twitter also may be used for sharing ideas and coordinating activities, representing an informal communication medium both at work and socially life.

Our literature review follows two directions: the Technology Acceptance Model (TAM) and the motivation-oriented prospective.

Davis' TAM (1986) is one of most widely used models to explain users' behavioral intention to use a technological innovation. According to TAM the intention to use (BI) an information system is determined by two beliefs: perceived usefulness (PU) and perceived ease of use (PEOU). Moreover, PEOU is also related to PU.

Other research has applied motivation-oriented perspectives to understand new technology acceptance and use. In particular, Vallerand (1997) has developed a Hierarchical Model of Intrinsic and Extrinsic Motivation framework, to promote the understanding of the basic mechanism underlying the intrinsic (IM) and extrinsic motivation (EM) processes. IM is defined as the doing of an activity for itself, and the pleasure and the satisfaction derived from it rather than for some separable consequence, whilst EM is defined as the doing an activity in order to attain some separable outcome.

Based on this framework, some scholars (Davis et al., 1992; Venkatesh, 2000) have examined the importance of the role of IM and EM on BI to use technology. According to Davis and colleagues (1992), PU represents an outcome expectancy and a measure of EM, whilst enjoyment (ENJ), or the extent to which the activity of using the computer is perceived to be enjoyable, represents an example of IM (Davis et al., 1992). Venkatesh (2000) also investigated the role of IM in determining the technology acceptance, identifying both playfulness (PLAY), or the degree of cognitive spontaneity in computer interaction, and ENJ as two important variables used in predicting PEOU.

Previous studies have highlighted the key role of user's IM (both ENJ and PLAY) in determining usage behavior of specific work tools like programs, microcomputer, portal sites, and Internet, but they have not investigated the acceptance of microblogging. Unlike other work tools used by users, it could be used both for work and social activities and, above all, it usually is characterized for an voluntary approaches to usage. We believe the spontaneity of choice could be characterized by users' intrinsic motivation.

PROPOSED RESEARCH MODEL

In agreement with previous research, we assume that BI derives from EM (PU) and IM (ENJ and PLAY). PU has been considered as a variable that could measure the user's EM (Davis et al., 1992), whilst ENJ and PLAY are considered two variables that capture the user's IM to use a specific technology. Finally, other studies have assumed that PEOU is a determinant of user's IM and EM (Davis et al., 1992). Consistently, our hypotheses are shown in Figure 1.

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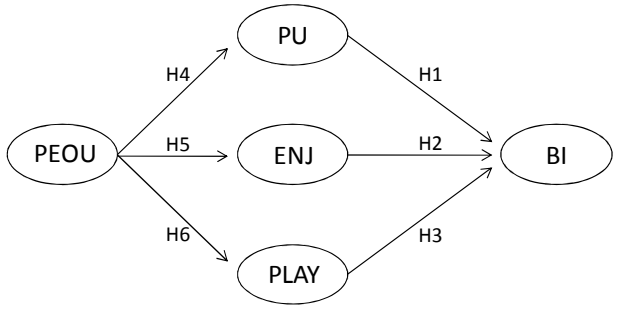
Figure 1. Proposed research model



Control variables:
age, gender, educational level, Twitter experience.

METHODOLOGY

A survey methodology was used to gather data. We generated a structured questionnaire based on scales validated in the literature and we administered it by tweeting the link to our Survey Monkey to all the Twitter contacts of Dr. Sue Black. In 2009 she has been nominated "IT Twitter User of the Year" for the Computer Weekly.

BI, PU, an PEOU were measured using Venkatesh and Davis's (2000) scale. ENJ was measured using Davis, Bagozzi, and Warshaw's (1992) scale; whilst PLAY was measured using Webster and Martocchio's (1992) scale.

Finally, we identified the following control variables: age, gender, educational level, and Twitter experience.

Of the 3050 Twitter followers, 385 returned questionnaires (response rate 12.63%).

Results

The structural equation modeling technique of Partial Least Squares (PLS) has been used to analyze the data.

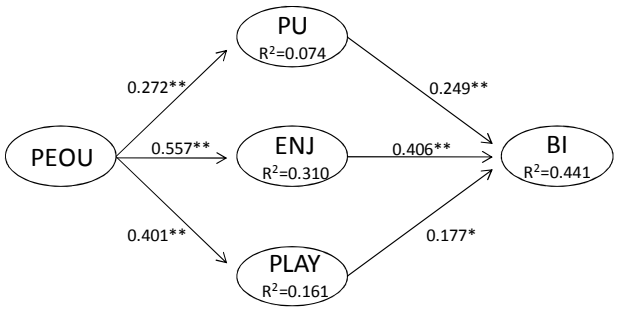
The correlations among the variables are represented in Table 1, whilst PLS results are shown in Figure 2.

Table 1. Mean, Standard Deviation, Cronbach Alphas, and correlation table among the variables

	M	*SD*	*Alpha*	Age	Gender	Educational level	Twitter experience	PEOU	PU	ENJ	PLAY	BI
Age	*38.73*	*9.97*	-	-								
Gender	*0.37*	*0.48*	-	-0.084	-							
Educational level	*2.23*	*0.87*	-	0.022	0.194**	-						
Twitter experience	*14.28*	*9.49*	-	0.070	-0.134**	-0.034	-					
PEOU	*5.55*	*0.90*	*0.709*	-0.117*	0.025	-0.060	0.116*	-				
PU	*4.74*	*1.18*	*0.856*	0.100	0.002	-0.006	0.285**	0.221**	-			
ENJ	*5.93*	*0.84*	*0.717*	0.035	0.098	-0.072	0.153**	0.498**	0.341**	-		
PLAY	*5.31*	*0.81*	*0.849*	0.088	-0.035	-0.071	0.212**	0.306**	0.406**	0.563**	-	
BI	*6.05*	*0.91*	*0.937*	-0.015	0.009	-0.061	0.150**	0.446**	0.444**	0.578**	0.472**	-

**. The correlation is significant at level 0.05;*
***. The correlation is significant at level 0.001.*

Figure 2. Results of Partial Least Squares



** p≤0.001; * p≤0.05.

Results show that the control variables are not related with BI. Therefore, in the final model the control variables are not displayed. Moreover, findings show all hypotheses are supported by data.

DISCUSSION

Our findings show that PU, ENJ, and PLAY positively affect BI. Moreover, they mediate the relationship between PEOU and BI.

These results are consistent with much of the research investigating technology acceptance. Users intrinsically and extrinsically motivated are more willing to IT use. In particular, PU explains the utility values for system usage. Therefore, the more users considered Twitter useful for both social and work life the more they are willing to use it. Moreover, people doing something considered interesting or enjoyable are more intrinsically motivated for carrying out some activities and a particular task than others. Therefore, we also believe that technology users feeling pleasure, joy, and fun are more likely to have a higher degree of intention to use it.

Finally, findings show that IM, and specifically ENJ, is the more explanatory variable on BI than EM. We believe that this result derives from the nature of technology. Previous research has highlighted the explanatory effect of EM than IM on BI above all in contexts characterized from mandatory usage of work tool like program, Internet, and enterprise IS implementation. Microblogging allows to users to balance their work and socially life, sharing ideas, coordinating activities, and improving the relationships both with colleagues and friends. It helps people to keep in touch representing an informal communication medium at work. On the contrary of other tools, people normally choose to use microblogging knowing could use it for different contexts. For these reasons people found Twitter more enjoyable than useful and are more intrinsically motivated.

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