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ABSTRACT

Cellular phones have changed the way we live. A deeper understanding of how the attributes of these technologies influence end-users perceptions is an important issue. A better understanding of the cellular phone adoption and use process will inform our understanding of the diffusion process of other types of communication technologies. This empirical piece examines the influence of the *Technology Characteristics*, *Group Characteristics (Familiarity), Mobility, Facilitating Conditions* and *Social Influence* on the use of the cellular phones. Data were collected through a questionnaire survey from a final sample of 277 cellular phone users in Quebec (Canada). The results suggest that, among the factors mentioned, only *Mobility* has a direct on the adoption on all the three indicators of use defined in this study. These findings have theoretical and managerial implications which are highlighted.

Keywords: *Diffusion of Innovation, Technology Acceptance, Use, Cellular phone.*

INTRODUCTION

Technology adoption can be viewed as a decision process which may result in an individual's acceptance and use of an innovation to achieve a specific goal (Rogers, 2003). In spite of the increasing number of information and communication technologies (ICT) in all aspects of our lives, several issues related to mechanisms that govern the process of diffusion and adoption of an ICT (Mustonen-ollila and Lyytinen, 2003) have not been adequately explored. For example despite the widespread diffusion of cellular phones, there is little research investigating psychological factors influencing mobile phone use (Walsh and White, 2006). Further, most of these studies were undertaken in developing countries. Several studies (e.g., Hofstede 1980; Keil et al. 2000; Srite and Karahanna, 2006) suggest that behavioral models do not universally hold across cultures, and so cultural differences between countries may impact the acceptance and use of an ICT. Thus at this point it is not clear if the results of studies on the adoption of cellular phones in developing countries are appropriate for highly developed economies. In this study we explore issues related to the adoption of a collective use ICT, the cellular phone, in a developed economy. We seek to explore the underlining factors that explain the adoption of the cellular phones, especially as these technologies offer various innovative, valued-adding applications including mobile commerce and access to healthcare services. Specifically, we strive to provide answer to the following research question:

> *What are the impacts of specific external factors (i.e. mobility, facilitating conditions, social influence, technology characteristics, group characteristics) on the use of the cellular phones?*

Our objective is to understand the dynamics of the adoption of cellular phones as Ishii (2004) argued that the diffusion of mobile devices is driven by a better understanding of the ultimate users of the technology. A good knowledge of the needs of the end-users contributes to the formulation of strategies targeted toward fostering successful practices. Our study strives toward that end. While adoption of cellular phone, an interactive, collective-use ICT, differs from of other types of innovations (Markus, 1987; Mahler and Rogers, 2000), similarities may exist between the adoption process of cellular phones and the Internet (Rice and Katz, 2003). Therefore it seems reasonable to expect that our research can generate new and interesting insights and to extend the current understanding of cellular phone use and its various applications. As such, the results of our work have the potential to be of interest to researchers, cellular phones service providers even public policy makers.

OVERVIEW ON RESEARCH ON ADOPTION OF THE CELLULAR PHONE

Previous studies that aim to explain the cellular phone adoption factors involve the integration of results and concepts from several disciplines (psychology, management, marketing etc.) across many research traditions or schools. They can be categorized into three main perspectives.

1. The first perspective is dominated by the diffusion of innovations theories (DOI). It considers that the innovations (cellular phones) are diffused among a group of adopters according the S curve model as highlighted in Rogers (2003).
2. The second perspective focuses on adoption theories to explain the decisions of cellular phone adoption by the end-users. The seminal models (Venkatesh and Davis, 2000) used in this perspective are the technology acceptance model of Davis (1989), the theory of the reasoned action suggested by Ajzen (1975) and the

theory of the planned behavior by Ajzen (1985). It is important to mention there are few studies related to cellular phone adoption in this perspective.

3. The last perspective relates to the studies which a focus on domestic usage on cellular phones as reason for their adoption (Silverstone and Haddon, 1996). These studies are mostly descriptive and they generally use sociological approaches to examine cellular phone adoption. Their principal focus are the process and the consequences of the introduction of cellular phone into the everyday life of the households. Demographic variables such as gender and age are used to study and to categorize adopters.

Research on the adoption of cellular phone technology can also be considered to be at either the macro or micro levels. Macro level studies explore the process of cellular phones diffusion within a given group of adopters. Based on the Rogers (2003) model, they classify adopters in five different groups: the innovators, the first adopters, the early majority, the late majority and the laggards. Tjostheim and Boge (2001), in this group, compared the demographic characteristics of adopters active in electronic commerce through mobile phones and Mahler and Rogers (2000), comparing landline and cellular phone adoption. The main explanation of the difference between the rhythm of cellular phone adoption and landline phone in these studies is related to the externalities of the communication networks supporting the two technologies. Instead of focusing on individual needs and behaviors, diffusion studies on aggregate measures of mobile penetration within or across nations. Some seek to describe penetration rates using geography and income (Baliamoune-Lutz 2003), income alone (Rouvinen 2006), the quality of the institutional environment (Andonova 2006), or socio-cultural attributes and internet/telecom use (Kamssu 2005). Some fit existing diffusion models (Kumar et al. 2007; Varadharajan 2007; Koski and Kretschmer 2007) to developing-world contexts. Others (Banerjee and Ros 2004; Dholakia et al. 2004) identify distinct patterns of mobile utilization instead of trying to fit all nations to a single model. Similarly, Kauffman and Techatassanasoontorn (2005) develop a model in which regional contagion (similarities across borders) helps predict/explain mobile penetration levels.

At the micro level, studies exclusively emphasize the process of cellular adoption and use at the individual level. Some studies are descriptive (Green et al., 2001). Others have applied the Technology Acceptance Model (TAM) to explain and predict mobile adoption in Nigeria and Kenya (Meso et al. 2005), and in South Africa (van Biljon and Kotzé 2007). The theory of reasoned action has been applied in Guinea (Kaba et al. 2006) and in Botswana, Ghana, and Uganda (Scott et al. 2004). Other micro-level diffusion studies examine the appeal of the mobile (versus the fixed line) to companies in Eastern and Central Europe (Vagliasindi, et al., 2006) using adoption at the enterprise level as the dependent variable.

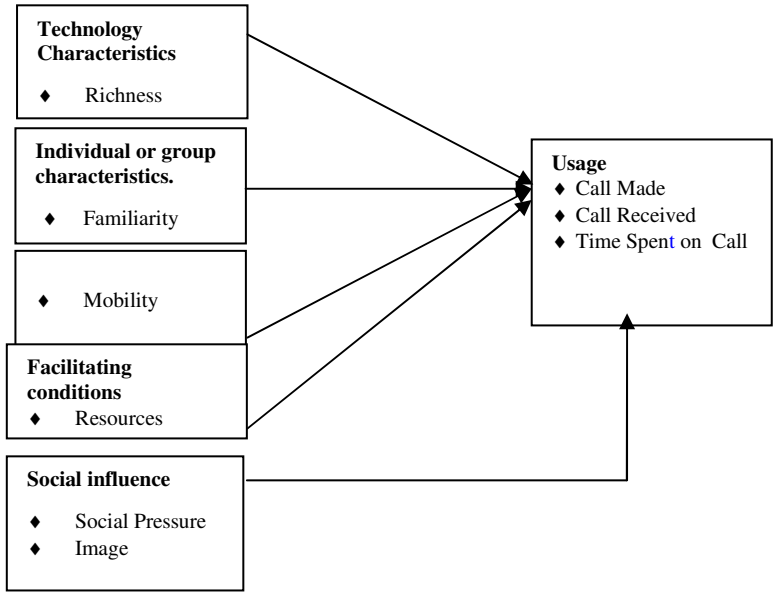
It is important to mention that although there is an abundant literature dedicated to the adoption and diffusion of technological innovations in the MIS field, there is almost no published research that offer explanatory models for cellular phone adoption in developed countries. This fact is even more surprising given that the recent types of cellular phones have reached almost the same level of complexity as traditional information systems such as the micro-computers. It becomes imperative then to cross the line of description and to come out with empirical models which explain the cellular phone adoption behavior. This is the goal of the current study.

PROPOSED THEORETICAL MODEL

The Technology Acceptance Model (TAM) of Davis (1989) is generally referred to as the most influential and commonly employed theoretical model in information systems research (Lee et al. 2003), having been successfully applied in numerous empirical studies (Kwon and Chidambaram, 2000; Mathieson, 1991; Taylor and Todd, 1995, Davis and al., 1989). According to TAM, an individual uses a technology because of the belief that the technology will improve the effectiveness (usefulness) and efficiency (ease of use) of the task. Following the publication of TAM, numerous models have been proposed, including: TAM2 which is an extended version of TAM (Venkatesh and Davis, 2000), and the decomposed theory of planned behavior (DTPB).

The main findings of TAM suggest that *Usefulness* and *Ease of Use* are the most important factors which explain technology adoption and use. However, while many studies recognized that *Usefulness* and *Ease of Use* affect Information technology acceptance, until there is a greater understanding of their determinants, it will be difficult to provide actionable and practical guidance from TAM (Benbasat and Barki, 2007). For instance, Davis et al. (1989) suggested the existence of external factors that would explain the adoption through the *Perceived Usefulness* and the *Ease of Use* constructs. Other studies have shown that the capacity of the TAM to predict a behavior can be improved by including other factors to the model (Argawal and Prasad, 1999). In this study, we seek to determine the influence of the external factors on the adoption and use of the cellular phones in Quebec. More specifically, we seek to identify the antecedents *Usefulness* and *Ease of Use* contained in adoption models in order to benefit practice (Benbasat and Barki, 2007).

Figure 1
Proposed Theoretical Model



Our proposed model suggests that direct relationships between the constructs and the usage of cellular phone. It is concerned with the causal relationships that express the influence between Technology Characteristics, Group Characteristics, Task Characteristics, Context, and Facilitating Conditions on the use of cellular phones. As we stated previously TAM and subsequent studies had demonstrated the fact that it is solely through *Usefulness* and

Ease of Use that external factors influence attitudes in the use of a technology. Since the influence of those variables on attitude and on use has been studied and supported in many studies, the examination of their influence will be deliberately omitted in this study. The subsequent sub-sections provide a detailed account of the research hypotheses.

Technology Richness

According to Daft and Lengel's (1986) definition of communication media richness, the principal attributes of a rich ICT can be brought back to *Social Presence* and *Immediacy*. *Social Presence* is defined as the psychological impression of the physical presence of the users of a given technology (Shorts et al., 1976). The technology's capacity to transmit non-verbal cues influences *Social Presence.* Shorts and al. (1976) indicate that face-to-face communication is richest in *Social Presence*, followed respectively by technologies that transmit voice and image, then the ones transporting only voice, and finally the ones that only transmit text. Theories relative to the choice of the communication media or ICTs stress the importance of the richness of communication medium on users' perceptions. Fulk and Collins-Jarvis (1999) showed that the richer the communication medium, the better its perception by the users. Hence, ICTs that foster higher *Social Presence* during use would have a greater likelihood to be adopted in comparison with the one that have less *Social Presence* (Shorts and Al., 1976). Nevertheless, the perception of *Social Presence* depends on the individual differences and type of activities (Fowler and Wackerbath, 1988). For example, the use of a technology of a lesser *Social Presence* (e.g., mail) to undertake an activity requiring a strong *Social Presence* (e.g., negotiation) could generate ineffectiveness or dissatisfaction.

The *Immediacy* of a communication media refers to its ability to allow a person to quickly contact another (Rice, 1987; Straub and Karahanna, 1998). Clark (1992) suggested that response quickness determines the effectiveness of a communication, that is, the quicker the response, the lesser the problems relative to the comprehension of the message. The *Immediacy* of the communication is an important factor in the choice and use of a technology of collective or interactive usage (Straub and Karahanna, 1998). Thus, ICTs that allow rapid interactions between communicating individuals are perceived as being more effective and more efficient. The following hypothesis is thus suggested:

H1: The *Richness* of a cellular phone has positive direct and indirect influence on its *Usage*.

Mobility:

Mobility can be defined as the ability of a person to move around while still being quite free to perform his/her task and interact with other people which result in instant access to information at any time and place. Professional and social lives in contemporary society require that individuals stay in touch and that they communicate oftenly with each other. The ability to remain mobile (termed mobility) while performing social and professional duty has become one of the realities of the current environment (Brilman, 1996). Individuals no longer desire being tethered to a specific location in order to perform their daily activities. Rather, they value the

ability to "work while on the go" – where fulfillment of their activities, professional or otherwise, is accomplished via mobile technologies that allow them to work while in transit.

Currently, most communications are done largely in real time, and decisions are taken quickly. Individuals strive for decreasing the temporal and spatial barriers in their daily activities. In these circumstances, people would have a preference for technologies that allow for greater *Mobility* while carrying out effective and efficient tasks. Cellular phones, as an ICT, allow the undertaking of tasks in spite of spatial and temporary constraints could be well perceived by the users in the current context where speed and *Mobility* become the standards and have an impact on the use. Plant (2001) mentioned that besides this effect, cellular phone is principally adopted because of its *Mobility*.

H2: The *Mobility* of the cellular phone has positive direct and indirect influence on its *Usage*

Group Characteristics (Familiarity)

Familiarity refers to the degree of simplicity and intimacy in social relations that unite people who are not necessarily kin. One can argue that *Familiarity* stimulates the need for interactions, including communication, between individuals. It would seem reasonable that the quality and strength of the ties between individuals would influence the adoption of collective use ICT, such as cellular phones, whose use requires the interaction of at least two people. Further according to Markus (1987), diffusion of a collective use ICT, such as cellular phones, requires the establishment of a first group of early adopters, often referred to as the critical mass, the survival/existence of which depend on its adoption by successive waves of individuals. To sustain the critical mass it is important the members participate in communication, thus, the need for reciprocal interdependence of interests. *Familiarity* contributes to the reduction of the uncertainty relative to the interactions because of the existence of shared norms while increasing the probability of collective use of the technology (Carleson and Zmud, 1999). Ishii (2004) showed that users of mobile technologies maintain privileged interpersonal relationships. Hence, *Familiarity* would appears to be a factor that fosters the collective use of cellular phones.

H3: *Familiarity* has positive direct and indirect influence on *Usage*

Facilitating Conditions:

Triandis (1980) argued that a behavior cannot be manifested if the environmental conditions objectively prevent its occurrence. These conditions may encourage or discourage the adoption of a behavior, in our case, the adoption of cellular phones are called *Facilitating Conditions*. Many factors can be viewed as *Facilitating Conditions*. In the case of cellular phones, one can note the relative ease of installation of the infrastructures supporting the use of cellular phones relative to the landline phones, and the ease of setting up the phone service (Minges, 1999). Other such conditions are financial resources, technology support (Mathieson et al., 2001), training, membership in a rich social network (Rogers, 1995).

The influence of *Facilitating Conditions* in fostering or inhibiting the use of ICTs has been widely debated throughout the literature (Ajzen, 1991; Karahanna and al., 1999; S. Taylor and Todd, 1995; Thompson and Al.,

1991; Mathieson and al. (2001). Minges (1999) implicitly suggested consider that the *Facilitating Conditions* in favor of cellular phone explain its adoption. We suggest the following hypothesis relative to *Facilitating Conditions*:

H4: *Facilitating Conditions* have positive direct and indirect influence on the *Use* of cellular phone.

Social Influence

Social pressure refers to an individual's belief that it must conform to established practices Whereas Image can be defined as the degree to which an innovation is perceived by a person as a source of improvement of his or her statute within his or her social sphere (Moore and Benbasat, 1991). Innovation diffusion theory suggests that ICTs are adopted through imitation. In line with proponents of theory of reasoned action, social pressures could be considered as factors influencing an individual's perception to undertake a given action. Thus, one can formulate the hypothesis below:

H5: *Social Pressure*s positively influence the *Usage* of cellular phones.

METHODOLOGY

Questionnaire Development

The data used in the analysis were collected through a questionnaire which was pre-tested to assure contain validity. We adopted a seven points Likert scale (where 1 indicates "Strongly Disagree" and 7 "Strongly Agree"). The items were selected from prior relevant research and adapted to the context of this study. More specifically, Carleson and Zmud (1999) for *Technology Richness* and *Familiarity*, Ajzen and Fishbein (1980) for social pressure, Moore and Benbasat (1991) for *Image*, of Davis (1989) and Kwon and Chidambaram (2000) for *Usefulness, Perceived Ease of Use, Intrinsic Motivation*, and *Attitude*. (Limayem et al., 199; Igbaria, 1994 and Kwon and Chidambaram, 2000) identified three indicators of cellular phone usage: The *Average Daily Calls Received*; the *Average Daily Calls Made* and the *Average Daily Calls Length Of Use*.

Data Collection

The questionnaire was administered to cellular phone users in Montreal areas. To stimulate a high response rate, the administration was done through direct contact. Thereafter, the researcher and the investigators contacted the participants of the in order to allow them to fill the questionnaire. The questionnaires were randomly distributed to the respondents at work places, residences, schools, and public gathering places, wherever the users of the cellular phones could be found.

800 questionnaires were distributed of which 277 usable responses were obtained for a response rate of 34.25%.

- Fifty-one percent (51%) of the respondents were males compared to 49% of females.
- Respondents were relatively young as almost 84% of them were less than 41 years old.
- Respondents seemed to be familiar with cellular phone usage as more than 71% of them had been using their phones for more than 3 years.
- 36% of the respondents occupied a managerial position or own their business, while the income of 34.3% of the respondents was higher than the average income in Quebec.

- Almost 56.3% of the respondents were highly educated

Testing for Construct Validity

We assessed constructs reliability and validity using Cronbach's Alpha and Exploratory Factorial Analysis respectively (see Table 1). Cronbach alpha is greater than 0.7 for the items measuring variable T6, T1a, T1b, T2, and T8; greater than 0.6 for the items measuring variables T3 and T4b. However, it is lesser than 0.6 for the items measuring T4a. Peterson (1994) suggested that constructs measured through 2 or 3 items have a lower and weaker construct reliability compared to construct with more than three.

The results of the Factor Analysis indicate in table that *Familiarity*, *Mobility, Usefulness, Ease of Use, Perceived Pleasure, and ATTITude* are unidimensional constructs. The results also indicate that *Richness* and *Facilitating Conditions* are multidimensional constructs. The multidimensional nature of those constructs will be preserved for the remaining of the analysis. The test of discriminant validity suggests that the items measuring *resources availability*, one of the two dimensions of *Facilitating Conditions*, have weak factor loadings; and so they were removed from the model for any further analysis.

The results suggest a reliable instrument for our present study.

Table 1: Construct Reliabilities

Factor	Dimensions	Codes	Cronbach α	Variance Explained
Richness	Social Presence	**T1a**	0.8340	43.76
	Immediacy	**T1b**	0.7500	19.32
Group Characteristics	Familiarity	**T2**	0.8254	82.025
Mobility	Mobility	**T3**	0.6866	69.791
Facilitating conditions	Resources	**T4a**	0.5565	40.103
	Ease of Access	**T4b**	0.6724	24.754
Social Influence :	Image	**T5**	0.8987	71.02
	Social Pressure	**T6**	0.6116	51.02
Usefulness	Usefulness	**T7**	0.8522	65.376

Hypotheses Testing

Our research hypotheses were implicitly tested using the simple, multiple linear regression and Path analysis. First we investigated whether the exogenous constructs *Technology Characteristics*, *Group Characteristics*, *Mobility*, and *Facilitating Conditions* influence the cellular phone users' usage behavior. For each Usage variable (e.g. *Calls Made*, *Calls Received*, *Average Time Spent on Calls*), Regression analysis was used to determine if each exogenous variable is a statistically significant direct predictor based on the associated p-value (see Tables 2 to 3). Given our objectives this data analysis method was preferred to Structural Equation Model (SEM) which aims to test globally a causal relationship model.

The results of our analysis suggest that:

1. The variables *Social Presence* (T2), *Group Characteristics* (T2) and *Mobility* (T4) each has a statistically significant causal relationship with the *usage* variable *Average Number of Calls Received per Day* (see Table2).
2. *Mobility* (T4) has a statistically significant causal relationship with the *usage* variable *Average Number of Calls Received per Day* (see Table 3).
3. *Mobility* (T4) has a significant causal relationship with the *usage* variable *Average Time Spent on Calls* (see Table 3)

We used regression analysis to test the direct causal relationship that is postulated in our theoretical model between *Social Influence* and the *Usage* variables. Our results suggest that *Image* and *Social Pressure* do not explain any of the variance observed for the *Usage* variables and so the corresponding hypotheses are not validated (see Table 4). In contrast it should be noted that for developing countries, *Image and Social pressure* have in other studies been identified as the main factors influencing cellular phone adoption. The results of our study has suggests that for developed countries, cellular phone service providers should focus their marketing campaign on directly influencing individual behavior rather than social network as it may be the case into some developing countries.

Table 2: Partial General Equation: Exogenous Variables T1-T4 and Use variables

	Usage Variable			
	T11a(Calls Received)			
Predictor Variables	**Correlation**	**ß**	**T**	**p-value**
T1a (Social Presence)	**0.248**	**0.147**	**2.330**	**0.021**
T1b (Immediacy)	Ns	-0.034	-0.544	0.587
T2 (Group Characteristics)	**0.228**	**0.139**	**2.166**	**0.031**
T3 (Mobility)	**0.284**	**0.216**	**3.529**	**0.000**
T4b (Ease of Access)	Ns	-0.003	-0.044	0.965
R squared	12.6%			
Ficher Coefficient F	7.762			
Sig F (α)	0.000			
Durbin-Watson (DW) Coefficient	1.942			

Ns: No significant

Table 3. Partial General Equation: Exogenous Variables T1-T4 and Usage variables

	Usage Variables							
	T11c(Time spend on the calls)				**T11b(Calls Made)**			
	Correlation	**ß**	**T**	**p-value**	**Correlation**	**ß**	**T**	**p-value**
T1a	**0.171**	0.069	1.080	0.281	**0.177**	-0.030	-0.462	0.644
T1b	Ns	-0.018	-0.283	0.777	**0.128**	0.027	0.417	0.677
T2	**0.192**	0.123	1.898	0.059	Ns	0.115	1.754	0.081
T3	**0.272**	**0.229**	**3.670**	**0.000**	**0.295**	**0.269**	**4.287**	**0.000**
T4b	Ns	-0.006	-0.099	0.921	Ns	-0.006	-0.098	0.922
R squared	9.9%				10.3%			
F	5.710				5.902			
F (α)	0.000				0.000			
DW	2.030				1.820			

Table 4: General Equation: Exogenous Variables T5a-T5b and Usage variables

Hypotheses	**Usage Variables**								
	T11a (Calls received)			**T11b (Call made)**			**T11c(time spend on call)**		
Parameters	**ß**	**T**	**p-value**	**ß**	**T**	**Signif. T**	**ß**	**T**	**p-value**
T5a(*Social Pressure*)	0.011	0.163	0.871	0.005	0.070	0.944	0.013	0.190	0.849
T5bq(*Image*)	0.066	0.989	0.324	0.104	1.565	0.119	-0.011	-0.156	0.876
R square	0.5%			1.1%			0.000		
Fisher F	0.696			1.560			0.021		
Signif. F (α)	0.500			0.212			0.979		
D-W Coeff.	1.786			1.913			1.750		

DISCUSSION

In this study, we strive to identify the factors determining the use of ICTs in general and cellular phone more specifically. The results of the hypotheses testing suggest that among the Predictor variable of usage, some have an exclusively direct influence, whereas others have no influence on the use of cellular phone. More specifically, our examination of the relationship between the independent variables and the use of cellular phone suggested that *Social Presence*, *Group Characteristics* and *Mobility* have a direct on the *usage* in terms of *Calls Received* and *Calls Made*, while *Mobility* is found to have an influence on average *Number of Daily Calls Made*. Cellular phone enabled communication allows the presence of multiple cues such as: the tone of voice, the variety of the language used, and the capacity to personalize through feelings and emotions. These properties of cellular phones make them rich communication media; thus, justify their use in line with media richness and choice theories. This finding is aligned to the conclusions of media choice theories which consider that the richness (Social presence and immediacy) of a communication technology explains exclusively its use.

Group characteristic (familiarity) has an influence on *Use* (*Calls Received*). This result suggests that a person with multiple contacts uses more frequently his or her cellular phone provided that she perceives the cellular phone to be Ease of Use and develops a favorable attitude. Cellular phones are used to sustain existing social ties.

Mobility has a direct and indirect influence on the *Use* (*Calls Received* and *calls made*). This result suggests that user with activities demanding the movements uses cellular phones more frequently to make or receive calls, which does not seem to be a surprise. *Mobility* is often suggested in the literature as one of the principal reasons of cellular phone use. *Mobility* has also a direct influence on the level of *use* in terms of *average time spend of calls*. This result suggest that users who are highly mobile due their activities spend more time on cellular phone communication. Moreover, *Mobility* appears to have an influence cellular phone use (call length) without the user perceiving that the cellular phone is useful, easy to use, pleasing to use, or having positive toward such phone.

Immediacy has no direct impact on the level of use defined as the call made, call received and time spend on the calls. This result contradicts popular belief suggesting that communications means that enable dynamic interactions between the correspondents are often selected and used.

IMPLICATIONS

We hope the results of the present study will enable organizations to design and market innovation technologies and especially cellular phones. The design of cellular phones should take into account features that stimulate users' intrinsic motivation. Also the features should allow a creative use of the device. The choice of a communication medium should not be based solely on its usefulness and ease of use; but, it should also consider the technology capacity to support communications on the move. Our results can provide guidance to providers in the cellular phone industry. In particular, our results suggest that the designers need to focus on the features which facilitate cellular phone ubiquitous use especially in the remote areas. The cellular phone service providers need to provide wide area phone coverage by making available less costly and enhanced roaming services. That is, mobile services should allow excellent national and international coverage at low costs. From a theoretical perspective, the findings of this study add value to cellular phone adoption and technology acceptance literature by providing a current state of what needs to be considered in terms of technology when assessing the acceptance and use of the cellular phone. Like most empirical studies, our study is subject to some limitations which we will discuss next.

STUDY LIMITATIONS

We elected to only consider a set of exogenous variables based on prior studies (technology characteristic, facilitating conditions, group characteristic, Mobility and contextual). However, other factors could possibly affect cellular phones use. Future studies could strive to uncover additional meaningful factors that influence the adoption of cellular phones. Furthermore, moderating variables such as age, sex, and occupation were suggested in prior research; however, we elected to omit them in the present study. The study was conducted solely in Quebec; thus, the need for cross-national studies to achieve higher level of the generalizability of the results. Such studies may provide new insights into the diffusion, adoption, and use of cellular phones.

CONCLUSION

Over the past decade, we have witnessed the diffusion of many information and communications technological. That is, technologies are in some ways present in our daily activities. It is therefore important to understand factors that influence the adoption & diffusion of technology. Thus understanding why cellular phones are used or not used on the daily based was the purpose of the present study. Our findings suggest that determining factors such as *Social Presence, Immediacy, Group* and *Mobility* affect cellular phones use in many cases.

In this research we adopted a theoretical model framework that is based on theories from management information systems, management sciences (motivation studies) and media choices fields. We contribute to TAM by establishing pertinent external variables which are the antecedents of *Use*. We respond to the call of recent studies such Benbasat and Barki (2007) which recommends taking the IT adoption literature beyond TAM, to the next generation of adoption and acceptance research.

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