The Role of Gender in Paradoxes Associated with Smartphone Use by Brazilian Executives

Completed Research Paper

Ana Paula Borges

Getulio Vargas Foundation borgean12@hotmail.com

Luiz Antonio Joia

Getulio Vargas Foundation luiz.joia@fgv.br

Abstract

Studies have claimed that smartphone has generated both positive and negative consequences associated with its use by executives, who are most of the time unaware of them. Moreover, the influence of gender on the emergence of paradoxes accrued from smartphone use is something new in the Information Systems realm. Thus, this article aims at probing the role of gender in the emergence of paradoxes associated with smartphone use by Brazilian executives. A quantitative and qualitative methodological approach is then undertaken involving male and female executives in Brazil. The results point out that the gender variable does indeed influence the way executives in Brazil perceive the paradoxes accrued from the use of smartphones, as from the fourteen paradoxes set forth, six were perceived by female executives, whereas only four of them were perceived by male executives. Besides that, women perceive a higher ambiguity level in the paradoxes than men.

Keywords

Smartphones, Paradoxes, Gender, Executive Life, Brazil.

Introduction

In Brazil, the sales of smartphones in 2012 increased by 78% in relation to the previous year totaling 16 million devices (IDC, 2013). Moreover, in 2012 in Brazil, 59.5 million mobile phones were sold, 43.5 million of which were ordinary devices without data applications. According to IDC, the stake of smartphones in the total of mobile phones sold will continue to increase in Brazil, with Brazil being expected to be the fifth largest smartphone market in the world at the end of 2013, just behind China, United States, United Kingdom, and Japan (IDC, 2013). Thus, faced with the heavy growth of smartphone use in Brazil and aware of the strong relationship of this device with executive life (Yun, Kettinger, and Lee, 2012), the intention is for smartphone use by Brazilian executives to be the focus of this research.

While the subject of technology and organizations has been widely addressed in Academia, there is little research that has investigated the consequences (positive and negative) accrued from wireless mobile technology adoption by executives. In other words, although most researchers have investigated the relationship between technology and society, in what is called the information society (Barjis, Gupta, and Sharda, 2010), few studies have tackled the professional and personal micro implications of smartphone

adoption by "corporate professionals" (e.g., Sandi and Saccol, 2010; Borges and Joia, 2011, 2013 and Steelman, Soror, Limayen, and Worrell, 2012). In addition to this, most studies about smartphone use by executives have their focus on the benefits and gains to executives arising from the adoption of this device (e.g., Chen, Yen, and Chen, 2009). Moreover, the smartphone vendors also proclaim the advantages of this device to users, associating the smartphone with mobility and freedom. However, studies about technological paradoxes have claimed that information and communication technology adoption has generated both positive and negative consequences associated with its use by executives, who are most of the time unaware of them (Beaudry and Pinsonneault, 2005 and Borges and Joia, 2011, 2013).

Furthermore, the influence of gender on the emergence of paradoxes accrued from smartphone use is something new in the Information Systems realm. The extant literature mainly analyzes the gender influence in the implementation of Information Systems and Technology, as well as the role of gender in the perception and use of these systems and technologies (e.g., Venkatesh and Morris, 2000).

In this manner, the research question of this study is: What is the role of gender in the emergence of paradoxes associated with smartphone use by Brazilian executives?

Bibliographical Review

Technological Paradoxes

From the logical point of view, a paradox is a statement that is in itself a contradiction, albeit possibly well-grounded and valid (Lewis, 2000 and Adekola and Sergi, 2007). Besides that, paradoxes produce tension among organizational managers, who due to lack of options are expected to recognize them and develop coping strategies to live with them in their daily lives (Clegg, Cunha, and Cunha, 2002 and Beaudry and Pinsonneault, 2005). Thus, as technology leads to a more integrated and complex reality, several studies have sought to identify and categorize technological paradoxes, including those itemized below.

Mick and Fournier (1998) made their contribution to the discussion, when they decided to assess the technological paradoxes employing a qualitative approach based on content analysis of interviews, a study which had not previously been conducted in the academic field. The research conducted in the U.S. assessed the sentiments and behaviors of consumers of technological products like computers, printers, DVDs and televisions, by means of interviews, group discussions, and questionnaires. The scope of that research was to synthesize the concepts of paradoxes, emotions and behavioral strategies within the field of applied technology in consumer products. During that research eight paradoxes (P1 to P8) were revealed, as shown in Figure 1.

Jarvenpaa and Lang (2005) also studied the concept of technological paradoxes, more specifically in the universe of cell phone technology. In 2001, the authors conducted a survey with 33 discussion groups composed of 222 users recruited in Finland, Japan, China and the U.S. At the end of the study, they identified 23 paradoxes that after methodological revalidation were reduced to eight, which can be specifically applied to cell phone technology tools. In addition to four paradoxes revealed in the study of Mick and Fournier (1998) – P2; P4; P6; P8 – Jarvenpaa and Lang (2005) pinpointed four more technological paradoxes (P9 to P12), as shown in Figure 1.

Mazmanian, Orlikowski, and Yates (2006), when studying the social implications of using wireless email devices (BlackBerrys) also identified three types of conflicting dualities arising from use of this technology (P13 to P15): continuity/asynchronicity, engagement/disengagement and autonomy/addiction (see Figure 1). The engagement/disengagement paradox (P14) identified by these authors had already been perceived in the study of Mick and Fournier (1998). Furthermore, the continuity/asynchronicity paradox was also investigated by Watson-Manheim, Chudoba, and Crowston (2004) in research into collaborative work mediated by Information Technology, having been named the continuity/discontinuity paradox. Lastly, Mazmanian, Orlikowski, and Yates (2013) investigated the personal autonomy/professional commitment paradox associated with the use of smartphones by executives, concluding that this paradox supersedes the autonomy/addiction paradox previously identified by them (Mazmanian et al, 2006).

As a result, 14 paradoxes were set forth and will be used in this work, being consolidated in Figure 1.

Paradox	Concept			
P1: Control/Chaos	Technology can facilitate the order and control of tasks and situations, but it can also cause disorder, disarray and revolt.			
P2: Freedom/Enslavement	Technology can facilitate independence and reduce restrictions, but it can also cause dependency and more restrictions.			
P3: New/Obsolete	Technology can bring new benefits arising from advances in knowledge, but it can also be outdated by the time it becomes accessible to the consumer.			
P4:Competence/Incompetence	Technology can elicit a sense of efficiency and intelligence, but it can also cause feelings of incompetence and ignorance, due to the complexity and difficulty of use.			
P ₅ : Efficiency/Inefficiency	Technology permits greater speed and less effort in performing certain tasks, but it may also require more time and effort in others.			
P6: Satisfaction/Creation of Needs	Technology can facilitate the satisfaction of desires and needs, but it can also make us aware of as yet unrecognized desires and needs.			
P7: Integration/Isolation	Technology can facilitate interaction between people, but it can also cause their separation.			
P8: Engagement/Disengagement	Technology can facilitate the involvement, the flow and the activation of persons, though it may also cause accommodation, passivity and lack of connection.			
P9: Independence/ Dependence	The freedom gained by the possibility of being connected, irrespective of place and time creates a new form of dependency, which invariably coexists with the same sense of independence afforded by the technology.			
P10: Planning/ Improvisation	Cell phone technologies can serve as planning tools, allowing users to coordinate tasks, social engagements and meetings better. However, in practice, these tools end up generating more improvisation, as users tends to spend less time and effort managing their schedule and organizing their tasks.			
P11: Public/Private	Although they are considered for private and individual use, cell phone technology tools can be used everywhere and at all times, which leads to invasion of the space of others.			
P12: Illusion/Disillusion	The user creates expectations regarding the new technological model, imagining that the new attributes will enable more opportunities for communication and interaction. In practice, however, many disappointed users perceive that the new applications do not offer the desired benefits.			
P13: Continuity/ Asynchronicity	The smartphone helps ensure that employees are continuously connected, maintaining a broad information flow. However, this continuity can be controlled by users, as they can decide when and how they respond to the message.			
P14:Engagement/Disengagement*	While the use of the smartphone generates an extensive engagement of communications by e-mail, providing gains in terms of the dynamics of communication, it also leads to a distancing of personal interactions, affecting the comprehension and the content of messages.			

P15: Autonomy/Addiction	Although many smartphone users claim that the use of
	this technology increases the autonomy and flexibility of
	their work, many feel compelled to keep their phones
	connected and constantly updated.

Source: Developed by the authors based on Mick and Fournier (1998), Watson-Manheim et al. (2004), Jarvenpaa and Lang (2005), and Mazmanian et al., (2006, 2013).

Figure 1 – Technological Paradoxes

Executives, Gender, and Technology

Notwithstanding the fact that the number of female executives has increased over the years, there are still few women in executive functions in Brazil and worldwide. Research addressing the work of female executives in Brazil and around the world (Tonelli, 2005; Neto et al., 2010) points to the importance of the social role in the analysis of gender differences, in order to explain the reasons for men's predominance in this universe. Despite the stereotype of men as having a special vocation to lead and manage (Carreira et al., 2001), this idea seems to explain less and less why gender differences still persist. Motherhood and a double workload seem to explain why women have had difficulties in filling high level roles in organizational life (Lima, 2009; Neto et al., 2010).

In addition to this, several studies have investigated the woman/technology relationship, in order to understand whether gender leads to differences related to the use of, perception about and familiarity with technology (Morris, Venkatesh, and Philip, 2005). Several works such as Busch (1995) and Aronsson et al. (1994) set forth experiences that point out that these differences do indeed exist, mainly with respect to trust, experience level, amount of training, autonomy, etc. However, other works, such as Bain and Rice (2006) and Madigan et al. (2007), while having found subtle differences between men and women associated with their relationship with technology, argue that these differences are similar to those observed at other structural levels (e.g. differences related to labor market participation, amount of training required, occupation of higher managerial levels, etc.). Therefore, for those authors the difference does not lie in the technology itself, being merely a reflection of structural issues that, by themselves, already differentiate men and women in other dimensions (e.g. social roles, work, family, emotional issues, etc.).

Methodological Procedures

Research Design and Data Collection

As this study relies on extant theoretical background data, the research design sought to conduct an indepth study of the role of a variable seldom taken into account by theory, namely gender. However, before considering that variable, it was important to verify whether the paradoxes set forth in the extant literature are also present in the executive-smartphone relationship. Thus, the presence and intensity of the paradoxes already identified by Mick and Fournier (1988), Jarvenpaa and Lang (2005), Watson-Manheim et al. (2004), and Mazmanian et al. (2006, 2013), with respect to the use of smartphones by Brazilian executives was investigated using a structured questionnaire.

The questionnaires that represented the first phase of data collection were based on the fourteen technological paradoxes singled out by Mick and Fournier (1988), Jarvenpaa and Lang (2005), Watson-Manheim et al. (2004), and Mazmanian et al. (2006, 2013), as of the total of fifteen listed paradoxes, two (P8 and P14) are similar (see Figure 1). Each of the fourteen paradoxes was broken down into two questions that represented the antagonism associated with that paradox. Thus, the questionnaire consisted of 28 interspersed questions, such that the conflicting issues relating to a certain paradox would not be together or in close proximity, aiming to minimize the perception of respondents regarding the purpose of the research.

^{*} The engagement/disengagement paradox (P8), identified by Mick and Fournier (1998), was also identified by Mazmanian et al. (2006) (P14). Therefore, the 15 paradoxes listed were reduced to 14.

The questionnaire used a semantic differential 5-point Likert scale, the intention of which was to evaluate the agreement of the executives in relation to the sentences presented. The scale ranged from 1 (totally disagree) to 5 (totally agree).

This first stage lasted 50 days ending in June 2012. Throughout this period of time, a link was made available for accessing the questionnaire. Using the snowball technique with male and female executives who were taking part on an executive education course coordinated by the authors, 58 questionnaires were obtained. After having validated the respondents, in order to know whether all of them complied with the pre-established criteria, 49 valid questionnaires were obtained (21 women and 28 men). All these executives owned smartphones (personal or given by their companies) and used them both for professional and personal issues.

The second stage addressed in-depth interviews aiming at understanding what was actually important for the respondents, probing their perspectives and their way of perceiving, categorizing and understanding the world. From the total, 16 executives - 9 women (W_i , i=1,9) and 7 men (M_j , j=1,7) accepted to be interviewed by the researchers at this stage. The interviews lasting 1.5 hours on average, were conducted personally or via skype (voice), and took place from July to September 2012.

Data Analysis

The results obtained in the first stage of data collection were analyzed via non-parametric statistics as the answers were ordinal variables and the number of respondents was not sufficient to attribute the sample with the premises of normality. Furthermore, as the objective was to compare the values accrued from each of the two sentences associated with each paradox, a paired test was used. Thus, the Wilcoxon signed-rank test was applied, as it can be used as an alternative to the paired Student's t-test, the t-test for matched pairs, or the t-test for dependent samples when the population cannot be assumed to be normally distributed (Siegel and Castellan Jr., 2006).

The null hypothesis is that the averages of the two opposed sentences that compound the paradox are equal, indicating the presence of ambiguity. Thus, in the case of the null hypothesis of there not being a difference between the averages of the two samples not being rejected at a 1% significance level, the existence of a paradox can be supported. In this study, three levels of intensity were set up to measure the ambiguity level of a paradox, namely: p-value between 1% and 5% - the sign of a low ambiguity level; p-value between 5% and 10% - the sign of a medium ambiguity level; and p-value above 10% - the sign of a high ambiguity level. Conversely, in case of the null hypothesis of there being a difference between the two samples being rejected at a 1% significance level, the existence of a paradox cannot be supported (Borges and Joia, 2011, 2013).

The affirmations obtained via interviews were codified, consolidated and analyzed *vis-à-vis* their description of reality. Most of the time, excerpts were extracted in order to support the results. In order to do this, content analysis was used to interpret the affirmations (Bardin, 2009).

Results

The results ponted out that the gender variable does indeed influence the way executives in Brazil perceive the paradoxes accrued from the use of smartphones. From the fourteen paradoxes set forth, six were perceived by female executives, namely freedom vs. enslavement, independence vs. dependence, planning vs. improvisation, public vs. private, continuity vs. asynchronicity, and autonomy vs. addiction. However, only four of them were perceived by male executives, namely freedom vs. enslavement, independence vs. dependence, continuity vs. asynchronicity, and autonomy vs. addiction. Besides that, women perceive a higher ambiguity level in the paradoxes than men (see Table 1 below).

PARADOXES	PARADOXES WOMEN		MEN	
Description	p-value	Ambiguity Level	p-value	Ambiguity Level
P1: Control/Chaos	0.0009	No	0	No
P2: Freedom/Enslavement	0.04112	Low	0.0423	Low
P3: New/Obsolete	0.00036	No	0.0001	No
P4:Competence/Incompetence	0.00296	No	0.0005	No
P5: Efficiency/Inefficiency	0.00016	No	0.0004	No
P6: Satisfaction/Creation of Needs	0.00034	No	0.0005	No
P7: Integration/Isolation	0.00117	No	0.0002	No
P8: Engagement/Disengagement	0.00063	No	0.0003	No
P9: Independence/ Dependence	0.148	High	0.076	Medium
P10: Planning/ Improvisation	0.347	High	0.0001	No
P11: Public/Private	0.4537	High	0.0004	No
P12: Illusion/Disillusion	0.0005	No	0.0004	No
P13: Continuity/ Asynchronicity	0.9297	High	0.0184	Low
P14:Engagement/Disengagement*				
P15: Autonomy/Addiction	0.8057	High	0.5637	High

Source: Developed by the authors based on Mick and Fournier (1998), Watson-Manheim et al. (2004), Jarvenpaa and Lang (2005), and Mazmanian et al., (2006, 2013).

Table 1. Smartphone-Induced Paradoxes by Gender

Discussion and Conclusions

In order to answer the research question of this work, the paradoxes in which ambiguity levels were assessed as different for female and male executives are analyzed below, namely: independence/dependence, planning/improvisation, public/private, and continuity/asynchronicity.

Independence versus Dependence

The independence/dependence paradox was perceived by female executives as having a high ambiguity level, whereas for male executives the paradox was perceived as having only a medium ambiguity level.

According to Jarvenpaa and Lang (2005), this paradox can be understood as a particular instance of the freedom/enslavement paradox except for a subtle difference – the dependence level accrues from the very fact that the user always needs to be connected. That idea might be linked to the perception that the smartphone is supposed to be part of the body, something quite close to its owner, as can be seen in the affirmations below.

W2: "During maternity leave, every now and again I'd receive e-mails asking about a certain file or project ... beginning with ... 'Hi there. Say, how's the baby?' ... blah, blah, blah ... and somewhere in the middle of it all, then came the work question ... it's par for the course ..."

W4: "I never switch off my phone. I'm hooked up 24 hours a day and, because of that, I also end up being 100% available for work. The feeling I get is that I am only half a mother."

M2: "When leaving on vacation last year, my boss asked me if the beach I was going to had good reception ... What could I do? ... It's kind of ridiculous.... My wife does not understand ... I'd go to the beach and he'd be out there with me."

Almost half of the male and female executives declared the need to keep their devices always on to handle a possible urgent work demand. Both men and women believe that this behavior leads to a certain level of dependence or control wielded by their organizations. However, they appear to tolerate this situation, seeing it as being inherent to the role they play within their companies. In the case of women, however, this overlapping of tasks seems to be a little more complicated, as can be perceived in the affirmation below, as well as in the aforementioned depositions W2 and W4.

^{*} The engagement/disengagement paradox (P8), identified by Mick and Fournier (1998), was also identified by Mazmanian et al. (2006) (P14). Therefore, the 15 paradoxes listed were reduced to 14.

W3: "For men it's easy to work from home. I can only answer the odd e-mail when the kids are already in bed.... However hard I try, it's food, bathing, homework, there's no way of stopping ... nor do I want it to, right ?..... I'm out all day and it is normal that they want some attention... Some days I 'm exhausted..."

Thus, while men and women seem to be aware of this ambiguity, for the latter the home/office relationship seems to be more contentious, generating more stress and anxiety due to the need to be available for their organizations at all times. However, as a paradox and therefore a contradiction, a feeling of independence derived from an unlimited connection, anytime and anywhere, is also perceived by both genders as can be seen in the depositions below.

M1: "I can exchange information on various communication platforms: texting, e-mail, facebook, skype normal connection ... wherever I am."

W1: "I no longer need to take my laptop everywhere with me ... carrying all that weight ... it is so much easier ... gives me way more flexibility ... it is perfect for replying to short e-mails ... when I need to write longer texts, I wait until I get back home or to the office."

Planning versus Improvisation Paradox

The planning/improvisation paradox, from Jarvenpaa and Lang (2005), was only perceived by female executives, being considered by them as having a high ambiguity level. In other words, the smartphone allows a better coordination of tasks, meetings, and social appointments, whereas it also enables a greater improvisation capacity, as individuals waste less time managing their tasks and agendas.

From the affirmations, it was revealed that the appropriate use of time is a critical issue in this ambiguity. The female executives acknowledge that smartphones help them to be more productive, as they can be used during intervals in meetings, in taxis, airports, etc. as can be verified in the affirmations below.

W7: "Before the class starts, there I am in the gym, answering e-mails ..."

W8: "Even when getting my nails done, while the attendant is sanding them down, I take the opportunity to get a head start There's so much to do...."

Another aspect perceived from the affirmations is that for women the smartphone is heavily linked to agenda management and date visualization, helping female executives to plan and program decisions and routines to be done the following day.

W6: "I spent a few days without my BlackBerry and I really missed not having my calendar handy to know what the next meeting of the day was. I got used to it ... But now I have one again, it really makes a difference...."

Although improvisation is seen as the negative facet of planning by Jarvenpaa and Lang (2005), it seems to have a new meaning for women allowing unforeseen events to interrupt their very structured routines. This feeling is clearly perceived in the women's affirmations presented below.

W9: "It's great; you don't need to plan and schedule everything so far in advance ... If I leave work early, I just send a message to my boyfriend from the car and ask if he wants to go to the movies ... I can even buy the movie tickets over the phone."

W10: "There was even a day when I called my son's school bus as he was on the way home 'I'll pick him up at the next traffic light, ok?' ... He was overjoyed! It was a big surprise."

Public versus Private

As with the planning/improvisation paradox, the public/private paradox (Jarvenpaa and Lang, 2005) was only perceived by women, being considered as having a high ambiguity level. Although the smartphone allows women to develop a personal and private relationship with it, the device also takes control of women's space.

The benefits of communicating with others while moving around in several places is an important issue after the emergence of cell phone technologies. However, today, this characteristic is perceived as normal for executives, being associated with 21st century communications. Hence, most of the positive facets of this paradox derive from the affective and close link the women have with their devices, as seen in the affirmations below.

W15: "I have photos of many highlights of my life on it. All my personal contacts are also on it. ... But they are also synchronized with the computer.... Part of my life story is on it...."

W16: "I'm fascinated by technology - I love Apple apps! I'm a big fan of accessories and covers ... I love them."

According to the women's affirmations one can infer that the negative side of this paradox seems to be related to a feeling of abandonment due to a real or virtual absence of the other, as perceived in the affirmations below.

W13: "In the playground, it is always the same story ... I stay with the kids, pushing the swing, putting them on the slide, while my husband is on the BlackBerry ... it's as if he's not even there.... and in fact he isn't, right?"

W14: "I know I do it too sometimes, but it's awful when my husband grabs the iPhone and starts browsing at my side ... This has happened at the movies, before the film starts and in restaurants ... it's as if I wasn't even there."

Another constraint arising from this paradox is the need women have to change behavior and roles according to the contingencies, as set forth in the literature. Cooper (2002) and Ling (2004) pointed out that due to the increasing overlapping of space and time, women's personal and professional identities, which in the past were strongly linked to specific places and time, are now increasingly blurred, as can be perceived in the affirmations presented below.

W11: "I can't reply in front of my boss ... 'Hi honey' ... in an intimate manner And the worst is that he is on the other end of the line asking'What is it? Is something wrong?' ... Often, to avoid any tension, I sign off and call back when I get to my office ... 'Listen, I couldn't talk right then ...'"

W12: "Dani is insisting... 'Mum! Mum!' Even though I say I can't talk, she continues ... So, I try to look and sound calm and friendly so as not to get the reputation of being neurotic in front of others, but I really feel like giving her an earful ..."

Continuity versus Asynchronicity

This paradox was perceived both by women (high ambiguity level) and men (low ambiguity level), tallying with the ideas of Mazmanian et al. (2006). For most of the respondents, the possibility of answering messages (e-mails or SMS) at any time is an enormous benefit. According to the CEO of a large organization based in São Paulo, Brazil, it leads to enhanced time management and a reduction in fragmentation of routine, as most of the time his routine is interrupted by diverse demands.

M4: "I know when new text messages arrive, but do not feel under the obligation to answer everything that comes in immediately Sometimes I don't check e-mail over the weekend..... and even if I do check it, I almost always wait until Monday to reply."

With respect to women, the asynchronicity concept also complies with the theory, being perceived, as well as by men, as a positive concept. However, for women with children, the decision of attending or choosing to attend certain calls seems to be quite complex, as can be seen in the affirmations presented below.

W17: "When I'm in a meeting and I see that the call is from my house, I get tense when I can't answer. With small children at home, you never know what can happen....... I arrange an excuse to leave the meeting and call home ... and, almost always, it's nothing important."

W18: "It is very annoying to have to leave a meeting to answer the phone or whispering into the phone among colleagues. I've thought about buying a cell phone and leaving it with the child minder ... so I can

receive text messages from home and decide whether it justifies my calling back or not ... But, I don't think it would work in practice."

However, when executives send a message, the asynchronicity aspect seems to bother both genders, mainly relating to their personal lives. The affirmations and voice intonations of women suggest in a subtle way more anxiety than men, regarding the unavailability of the other either to answer their messages or attend their calls, as can be verified in the affirmation below.

W19: "I was in a meeting away from the office and I texted a friend, asking if she wanted to have lunch, but got no answer ... So, I decided to call and she answered. Sometimes, text messages are so boring ... which is why people don't reply immediately."

One can infer that the discomfort generated by asynchronicity is more accentuated in personal relations, as most of the affirmations from men and women referred to private issues. Besides, it is clear that while information flow continuity is extremely important for executives, the very fact that smartphones allow recipients to be aware of calls, messages or e-mails received, affords senders a certain level of tranquility/proactivity, as is perceived below.

M6: "The guy will see that I called ... If he doesn't return the call, I send an e-mail ... It works every time. Once it is recorded ... it's the other guy's turn to respond...."

M7: "When I don't get an answer to an e-mail, I copy a whole bunch of people on it and send it and ask again Who knows, the guy may feel under pressure and reply. The e-mail is a great tool in this respect ... everybody is made aware of what is going on and it can be used for confrontational purposes."

Furthermore, the continuity aspect seems to be strongly linked to the professional realm for both genders as can be seen in the affirmations presented below.

W20: "My team is constantly on the road or doing external work and it is therefore essential that we are always in touch."

M3: "When I send an e-mail to my manager with any questions or request for information, I expect him to be available and answer me quickly."

Lastly, this article raises some managerial and academic implications as set forth below.

It is important for executives to understand the trade-offs involved in the use of smartphones, as they can generate both positive and negative impacts in their daily routines. Besides, the ambiguities and paradoxes arising from the use of smartphones generate internal conflicts in the executives that need to be administrated by them and their organizations (Clegg et al., 2002). Thus, it is important for executives to be aware of the conflicting aspects associated with the use of smartphones both in their professional and private lives, in order to develop coping strategies that can range from neglecting ambiguities, accepting them or challenging and defying them (Mick and Fournier, 1998 and Beaudry and Pinsonneault, 2005).

Furthermore, this study tackles a very important issue that is also under-researched by Academia, namely the moderator effect of gender in the development of the ambiguities associated with the use of smartphones. It contends that although female executives are subjected to more ambiguities than male executives due to the use of smartphones, the former perceive more positive than negative effects from the use of smartphones, as this device allows them to play their different roles in society better, namely as executives, mothers, wives, maids, to name just a few.

Therefore, there is a long road still to be covered in order to better understand the role of gender in the emergence of paradoxes with positive and negative impacts associated with smartphone use by executives. Nevertheless, this work hopes to have contributed to further research on this issue.

REFERENCES

- Adekola A. and Sergi B.S. 2007. "The significance and paradox of globalization in the 21st century: the role of three major global institutions in selected areas". *Int. J. Management and Enterprise Development* (4:3), pp. 354-371.
- Aronsson, G., Dallner, M., and Aborg, C. 1994. "Winners and losers from computerization: a study of the psychosocial work conditions and health of Swedish state employees", *International Journal of Human-Computer-Interaction* (6:1), pp. 17-36.
- Bain, C. and Rice, M. 2006. "The Influence of Gender on Attitudes, Perceptions, and Uses of Technology", *Journal of Research on Technology in Education* (39:2), pp. 119–132.
- Bardin, L. 2009. Análise de Conteúdo. Lisboa, Portugal: Edições 70, LDA.
- Barjis J., Gupta A., and Sharda R. 2010. "Knowledge work and communication challenges in networked enterprises", *Information Systems Frontiers* (13:5), pp. 615-619.
- Beaudry, A., and Pinsonneault, A. 2005. "Understanding User Adaptation Behaviors: A Coping Acts Model., MIS Quarterly (29:3), pp. 493-524.
- Borges, A. P. and Joia L.A. (2011). "Uma investigação acerca dos paradoxos presentes na relação entre executivos e smartphones", In: *EnANPAD 2011*, 04-07 September, Rio de Janeiro.
- Borges, A.P. and Joia, L.A. 2013. "Executives and Smartphones: An Ambiguous Relationship.", *Management Research Review* (36:1), pp. 1167-1182.
- Busch, T. 1995. "Gender differences in self-efficacy and attitudes toward computers", *Journal of Educational Computing* (12:12), pp. 147-163,
- Carreira, D., Ajamil, M., and Moreira, T. 2001. *Mudando o mundo: A liderança feminina no século 21*. São Paulo: Cortez.
- Chen, J.V., Yen, D.C., and Chen, K. 2009. "The acceptance and diffusion of the innovative smart phone use: A case study of a delivery service company in logistics", *Information and Management* (46:4), pp. 241-248.
- Clegg, S. R., Cunha, J. V., and Cunha, M. P. 2002. "Management Paradoxes: A Relational View", *Human Relations* (55:5), pp. 483-503.
- IDC (2013). *IDC Releases*. Retrieved on November 15, 2013 from: http://br.idclatin.com/releases/news.aspx?id=1458.
- Jarvenpaa, S. and Lang, K. 2005. "Managing the Paradoxes of Mobile Technology", *Information Systems Management* (22:4), pp. 7-23.
- Lewis, M.W. 2000. "Exploring paradox: towards a more comprehensive guide", *Academy of Management Review* (25:4), pp. 760-776.
- Lima, G. 2009. "Os desafios da carreira da mulher executiva no Brasil". Master Thesis, Programa de Pós-Graduação em Administração, Pontificia Universidade Católica de Minas Gerais.
- Madigan, E., Goodfelow, M., and Stone, J. 2007. "Gender, Perceptions, and Reality: Technological Literacy Among First-Year Students", *SIGCSE'07*, Covington, Kentucky, USA. ACM 1-59593-361-1/07/0003.
- Mazmanian, M., Orlikowski, W., and Yates, J. 2006. "Crackberrys: exploring the social implications of ubiquitous wireless email devices", In: *Conference Paper for EGOS 2006*, Sub-theme 14, Technology, Organization and Society: Recursive Perspectives.
- Mazmanian, M., Orlikowski W., and Yates J. 2013. "The Autonomy Paradox: The Implications of Mobile Email Devices for Knowledge Professionals,", *Organization Science* (23:5), pp. 1337-1357.
- Mick, D. and Fournier, S. 1998. "Paradoxes of Technology: consumer cognizance, emotions and coping strategies", *Journal of Consumer Research*, Inc. 25.
- Morris, M.G., Venkatesh V., and Phillip P.L. 2005. "Gender and Age Differences in Employee Decisions About New Technology: An Extension to the Theory of Planned Behavior", *IEEE Transactions on Enginnering Management* (52:1), pp. 69-84.
- Neto, A; Tanure, B., and Andrade, J., 2010. "Executivas: Carreira, maternidade, amores e preconceitos", *RAE-eletrônica* (9:1), Article 3. Retrieved on March 4, 2011 from http://www.rae.com.
- Sandi, L. B. and Saccol, A. 2010. "Sobrecarga de informações geradas pela adoção de Tecnologias da Informação Móveis e Sem Fio e suas decorrências para profissionais de vendas", *Revista Eletrônica de Sistemas de Informação* (9:1), pp. 1-23.
- SiegeL, M. and Castellan, J. 2006. *Estatística Não-Paramétrica para Ciências do Comportamento*. Porto Alegre: Artmed.
- Steelman, Z., Soror, A., Limayen, M., and Worrell D. 2012. "Obsessive Compulsive Tendencies as Predictors of Dangerous Mobile Phone Usage," *Proceedings of the Eighteenth Americas Conference on Information Systems*, Seattle WA.

- Tonelli, M. 2005. "À beira de um ataque de nervos: um dia na vida de executivos em São Paulo". In: *Relatório de Pesquisa Fundação Getúlio Vargas*, Escola de Administração de Empresas de São Paulo Núcleo de Pesquisas e Publicações.
- Venkatesh, V. and Morris, M.G. 2000. "Why don't men ever stop to ask for directions? Gender, social Influence, and their role in technology acceptance and usage behavior", MIS Quarterly (24:1), pp. 115-139.
- Wasserman, I.M. and Richmond-Abbott M. 2005. Gender and the Internet: Causes of Variation in Access, Level, and Scope of Use. *Social Science Quarterly* (86:1), pp.252-270.
- Watson-Manheim, M.B., Chudoba, K.M., and Crowston, K. 2004. "The Paradox of Discontinuities and Continuities: Toward a More Comprehensive View of Virtuality", *Proceedings of the Academy of Management Annual Meeting*, New Orleans.
- Yun, H., Kettinger, W.J., and Lee, C.C. 2012. A New Open Door: The Smartphone's Impact on Work-to-Life Conflict, Stress, and Resistance, *International Journal of Electronic Commerce* (16:4), pp. 121-152.