Intrusive or Beneficial: Do Corporate Cell Phones Affect Workplace Obligation?

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A Capstone Project Submitted in Partial Fulfillment of the Requirements of the Renée Crown University Honors Program at Syracuse University

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Abstract
As mobile devices have crept into our personal lives, they have become a staple in professional’s lives as well. While these devices have made individuals better at instant communication, does this affect work-life balance? This paper aims to address this question through literature review, two primary data sources and an overall analysis. The target audience of this paper are employees with corporate cell phones and executives making decisions on mobile phone policies for their company or organization although, anyone can read it if they are interested in how technology influences daily routines.

Keywords: cell phones, work-life balance, organizational policies

Executive Summary
This Honors Capstone is entitled, “Intrusive or Beneficial: Do Corporate Cell Phones Affect Workplace Obligation?” Mobile has recently emerged on top as one of the most important technologies in people’s everyday lives. Using your mobile phone not only allows you to connect with friends and loved ones but manage your social and family life and more than ever, your work-life. It has become fashionable for corporations and organizations to provide a mobile device or a stipend for their employees. This is often under the guise of a perk but is it truly a benefit to the user or the company? This thesis delves deep into the relationship between work-life and home-life and how these devices affect them, respectively.

To study the relationship between obligation and corporate cell phones, first a literature review was performed. Many different theses and experiments, found in a variety of tech and
management journals, were read and analyzed. This was done to provide futures readers and myself with background information on the devices typically used, why they are used and how they are used. The next step was data collection, which was done in two waves. The first step of my original research included finding three different organizations that would share information about their corporate cell phone policies. I interviewed three different executives from the different organizations. The organizations operated in varied industries such as: non-profit education, real estate development, and website hosting. They provided insights on their corporate policies, why they developed them, how much the cell phones cost, their perceived benefit of the mobile phones and their personal device usage habits. The second round of collection focused specifically of the employees of the executives. They were provided with an anonymous one-minute survey. This was done to advance my argument that providing a cell phone to an employee enhances their sense of obligation to the organization especially after the traditional workday ends.

Many similar themes and interesting points emerged from the two rounds of data collection. One of the most interesting finds was that only one of the executives explicitly noted that he didn’t feel guilty calling, emailing or texting his employees outside of work hours. This was because having a corporate cell phone was listed in the job description. While the other two executives mentioned how a cell phone was necessary, they didn’t say if they felt guilty. All of the executives also said how they also always have their phones with them. One stated that he is “always able to be reached if necessary” and that cell phones are an “invaluable tool – if I didn’t have it I’d probably get more sleep.” Another executive felt that using the cell phone outside of
the workday relies mostly on discipline especially on vacations where he maybe would only check it once or twice a day.

The employees who took the survey had a similar sentiment. The survey took about one minute to complete and consisted of seven questions. This study found that from the 27 people who participated in the survey, the average amount of hours using the device within the hours of the workday was calculated to be 2.96 hours with the standard deviation of 1.9 hours.

![Graph showing percentiles and standard deviation](Quantiles.com)

Standard deviation is used to find how close measurements are to each other. Lower standard deviations mean that there is a narrow spread between numbers, which means all numbers are close to the average. A high standard deviation indicates that there is a large range of numbers that are not close to the average. Also, using standard deviation, we can split the results into percentiles. Therefore based on the graph above, we can say that 2.96 hours is in the 50th percentile (assuming the distribution is not skewed). The first deviation, $2.96 + 1.9$ or 4.86 is the
first deviation or 70th percentile. 2.96 - 1.90 or 1.06 is also in the first deviation of the mean (average) but additionally located in the 30th percentile.

When employees were asked, “How many hours a day do you think you use the device outside the office?” the average amount of hours recorded using the device outside the average workday was 4.81 hours. The standard deviation was 4.02 hours. A large amount of deviation in the set shows that there is a large range of hours that employees use their cell phones outside of the office.

Next, multiple-choice questions with canned responses were asked and a spot where one could put their own answer. Answers choices consisted of: “I always keep my phone on,” “I turn the phone off occasionally (for example at meals),” “I turn the phone off after work hours,” “I turn the phone off at any opportunity” and “Other.” 96% of participants said that they always keep their phone on. 4% of participants selected other and responded; “My phone is always on but not always on my person when I am home.”

Finally, the survey asked about their sense of obligation in returning a non-time-sensitive and a time-sensitive email from their supervisor after work hours. The questions were on a sliding scale where “0” was the lowest amount of obligation felt, and “10” was the highest amount of obligation felt. The results found suggested that the average had an obligation sense of 6.26 with a standard deviation of 2.54 in regards to answering a non-time-sensitive email after office hours. Time sensitive emails had a higher average of obligation with a score of 9.33 and a standard deviation of 1.62.
This project has many important takeaways based on its results. The cell phone has brought productivity in and out of the workplace. It affects all employees whether that is disrupting their sleep cycle or family time. This shows their sense of obligation to their employer whether they are aware of it or not. One point that is important to mention is the FLSA, or Fair Labor Standards Act. It required that non-exempt employees, employees who are paid hourly, must receive overtime after 40 hours of work. For example, this has been particularly prevalent with grounds workers of apartments employed by interviewed the real estate development company. If there was a problem after work hours and they were contacted via their cell phone, this would be considered overtime work. Therefore these employees would need to be compensated appropriately. Additionally, a new provision of the Fair Labor Standards Act was recently added in 2016 entitled the Final Rule. Exempt employees, also known as salaried employees, that make less or equal to 47,476 USD per year, are now eligible for overtime (dol.gov, 2016). This is important for employers to note when assigning work outside of the workday or if an emergency situation was to arise.

Based on an expansive literature review, three executive interviews, and 27 employee surveys suggest that corporate paid cell phones do affect workplace obligation for both executives and their employees regardless of the industry.
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Introduction

According to the Pew Research Center, “92% of U.S. adults now have a cellphone of some kind, and 90% of those cell owners say that their phone is frequently with them. Some 31% of cell owners say they never turn their phone off and 45% say they rarely turn it off” (Rainie & Zickuhr, 2015). This constant connection has become the social norm. We use our cell phones to keep in contact with loved ones, to Google questions and to play games. Additionally, cell phones can be used for work purposes. Emails, texts, and calls can reach their intended recipient at the push of a button. This “always on” mentality enables employees to respond to these work messages and problems without hesitation. In the same survey conducted by the Pew Research Center, “89% of cellphone owners say they used their phone during the most recent social gathering they attended” (Rainie, 2015). While this might not be to put themselves into a bubble of anti-social activity, it still might be a hindrance to themselves in regards to their work-life balance.

In the media and our daily lives, we often see professionals glued to their devices. Why do these people feel obligated to answer calls and emails outside of the workday? Is it because of constant emergencies or because they feel as they though they need to provide their boss with answers 24 hours a day, seven days a week? This condensed research question has become: do corporate cell phones positively or negatively affect workplace obligation in the lives of professionals?


**Literature Review**

*Families without Borders: Mobile Phones, Connectedness and Work-Home Divisions*

The research paper, Families without Borders: Mobile Phones, Connectedness and Work-Home Divisions, was produced in August 2008 to determine cell phone habits of the Australian population. It is to be noted that these are their personal cell phones. Having a cell phone and constantly being connected is known as “constant touch,” “perpetual contact” and “connected relationships” (Wajcman, Bittman and Brown, 2008). This constant connection allows employers and employees to be in constant contact 24/7. Many people feel that now work can take up the time that was once reserved for family and social life. On the other hand, some argue that these devices help strengthen relationships. Many now question if there is even a boundary between work and home. The design of the research conducted consisted of two major parts: a questionnaire and a phone log. A major question that included in the survey was “How much would you miss your mobile phone if it disappeared today?” (Wajcman, 2008) Fewer than 10% of the sample said that they could go about their lives as normal and would not miss their phone. Within the study, it was also found that there were gender differences in regards to the calls made. 38% of men used their phone for work related calls whereas only 11% of women used it for this purpose. 15% of men’s text messages were found to be work related, and 5% of women’s text messages were found to be work related. What is interesting in this study is that women were found to more likely contact their spouse around dinner and children around after school hours than men. Conversely, men are more likely to use their cell phone for job-related calls and call less often to their spouses and children around mealtimes and after school hours. Another interesting question that was answered by the study was “Do you normally take your mobile phone on holiday to talk to work colleagues?” (Wajcman, 2008) The population was divided
evenly but if broken down by gender, “it is apparent that men (51%) are almost twice as likely as women (31%) to be using their mobile phone to talk with their work colleagues while on holiday.” (Wajcman, 2008)

Managing work-life boundaries with mobile technologies

In 2015, results published in Information Technology & People, Volume 28, Issue 1 to an experiment conducted to see how individuals manage their work-life boundaries. To determine the management of work-life boundaries with mobile technologies two experiments were enacted within the time span of four years. They included 25 employees with several different types of mobile technology. There are five major affordances that employees with mobile technology have to manage their work-life balance are mobility, connectedness, interoperability, identifiability and personalization (Robey, 2015). Some positives of today’s mobile technology answer the need for accessibility. People can work anytime and anywhere with ease. On the other hand, “one danger is that work can occur “anytime, anywhere” may become work “all the time, everywhere,” thereby removing time for non-work activities” (Robey, 2015). People may “experience more stress,” and there may be a “deterioration of communication, office, personal relationships and work productivity” (Robey, 2015). Work-life boundary management “defines social borders, or boundaries, as the lines of demarcation between work and family domains that specify where domain-specific behavior begins and ends” (Robey, 2015). For example, the commute between work and home is a way to cross these boundaries. As technology develops, there will be an increasing blur of this defining line between work and home life. In the first study, there are three particular strategies used to balance home and work. They are: “managing physical boundaries, managing temporal boundaries and managing psychological boundaries” (Robey, 2015). Physical boundaries relate to the selection and configuration of the working
space. Examples of managing temporal boundaries include scheduling, converting dead time into productive time and multi-tasking. Managing physiological boundaries include technological designation rules, boundary permeation rules, and connection and disconnection rules. In study 2, similar results were found. Mobility was a must especially since technology has become smaller and lighter in the four years since the first study. “In Study 2 some mobile users never disconnected from either work or life domains because mobility and connectedness supported their preferred integrated boundary management strategy “(Robey, 2015). Participants find they are rarely disconnected from work unless they are in a place where Wi-Fi or cellular data is not an option. “Constant connection through mobile technology resulted in some mobile workers unwittingly extending the time to work and neglecting personal matters” (Robey, 2015). While some participants in the study did disconnect from work in their free time, those participants were the minority of the results.

Compelled to be connected: An ethnographic exploration of organizational culture, work-life balance, and the use of mobile workplace technologies

Compelled To Be Connected: An Ethnographic Exploration Of Organizational Culture, Work-Life Balance, And The Use Of Mobile Workplace Technologies, written by Kristopher J. Thomas, connects and questions the idea of work-life balance regarding the use of ICT or information communication technology in everyday life. Many claim that increased technology is daily life is the reason for increased stress and anxiety. In this thesis, the main question answered is if ICTs can influence organizational culture especially outside of the workplace. Since this was ethnographic research, the author took part in the research hands on. Open-ended questions were used during the interview process. It found that while technology was used, many positive components make up the company’s culture. They were: values, operational excellence,
pride, openness, and comfort. It was interesting that the researcher started this thesis thinking that ICT would affect culture but instead, culture affects the use of ICT. Additionally, this thesis began finding out the difference between genders, but the company did not have enough female employees to draw a conclusion.

*Communication technology: Pros and cons of constant connection to work*

The study, Communication technology: Pros and cons of constant connection to work, was conducted at Texas A&M University with published results in 2012. The study had a few hypotheses with relation to CT (communication technology). The study examined “the relationship between attitudes toward CT (i.e., CT flexibility), reported CT use, and how those attitudes and behaviors predict work interfering with family (work-to-life) conflict, as well as employees' work satisfaction” (Diaz, Zimmerman and Boswell, 2012). To determine results, the researchers created surveys to distribute to employees of the university. From the 553 surveys given out, there was only a response rate of 40%. Questions were asked based on their hypotheses. The participants were invited to choose an answer to the question based on a scale from “1 (strongly disagree or rarely) to 6 (strongly agree or almost all the time)” (Diaz, 2012). Once all the data was collected, it was synthesized individually by question and put into a standard correlation formula. Almost all of the hypotheses were supported by the correlation equation. “Results confirmed that CT can act as a “double-edged” sword, with both assets and liabilities for the employees utilizing it” (Diaz, 2012).

*IT Consumerization: When Gadgets Turn Into Enterprise IT Tools*

As personal gadgets enter the workplace, how should organizations respond to them? Should iPads and other devices be considered a work tool? A 2011 study provided by Accenture states
that “23% of employees were already using personal technology tools for work on a routine basis”. While it seems that personal technology allows for enhanced efficiency, it raises flags such as data security and reliability of the technology and standardization. Regarding BYOD, or "bring your own device," many companies are opting to give their employees a stipend for their cell phones. While this cuts down the cost of in-house corporate phones, they can use that money to create a safer and more complex computing environment. Additionally, having a connection to a device can potentially lead to increased motivation. To control the technology used within an organization there are two methods of thought: laissez-faire and authoritarian. Laissez-faire means that there is a very relaxed policy in regards to personal technology but on the other hand, an authoritarian policy is very strict about consumer devices in the office. According to the article, it is important to realize that consumer technology is rapidly growing and becoming more intrusive into our daily lives. It is the job of corporations to accept this change and figure out how they can make consumer IT work for them.

*Social Exchange Theory: An Interdisciplinary Review*

SET the acronym for social exchange theory. This theory assists us in understanding organizational behavior. One basic rule of this theory is the idea of reciprocity. “Reciprocity or repayment in kind is probably the best known exchange rule” (Cropanzano, 2005). Three types of reciprocities are: “(a) reciprocity as a transactional pattern of interdependent exchanges, (b) reciprocity as a folk belief, and (c) reciprocity as a moral norm” (Cropanzano, 2005). An interdependent exchange is one party responds to another’s response. An example of this would be the game of chess. “Reciprocity as a “folk belief” involves the cultural expectation that people get what they deserve” (Cropanzano, 2005). Examples of this are trading and bartering. Once
goods are traded, both parties will receive what they want and feel accomplished. The final form of reciprocity is called reciprocity as a norm and individual orientation. Norm can be considered an obligation to another person. Additionally, “findings suggest that individuals with a strong exchange orientation are more likely to return a good deed than those low in exchange orientation” (Cropanzano, 2005).

**Research Question**

Do corporate paid cell phones positively or negatively affect workplace obligation in the lives of professionals? In order to answer this question, I conducted research on the purpose and history of corporate cellphones. Specifically, this research focused on how professionals balance their work and home lives especially with the addition of a potential intrusion, the corporate cell phone.

**Procedure**

To seek out an answer to the proposed hypothesis, I designed a multi-step research process. First, scholarly and peer-reviewed sources were searched to unearth any prior research on this topic or in the realm of workplace ICT’s, also known as information communication technologies. Articles were chosen from different management, technology, and psychology journals. Keywords such as “cell phones,” “work-life balance,” and “overtime” were used to find the articles using Syracuse University Library’s Summon system. After the initial literature investigation had been completed, an Institutional Review Board application was submitted in order to perform a human study. Once the application for the study was approved, I began contacting executives to interview. Three managers or executives were needed for one on one
interviewing. Next, a list of carefully curated questions was created for the three executives. The interviews lasted about 20 minutes each and consisted of three open-ended questions. The questions were:

1. Can you explain your company’s current cell phone policies for employees?
2. How do cell phones affect your productivity? During work hours? After work hours?
3. What happens when your employees take home their company issued cell phones?

The three executives interviewed all hailed from different backgrounds and various sectors of industry. The first businessperson interviewed was a Telecommunications Manager of at a non-profit university. The second executive interviewed worked in the real estate development industry in the New York Metropolitan area as the Senior Managing Director of Multifamily Management segment within the company. The third executive interviewed was the founder of a start-up web solutions company with its focus on supporting college and high school athletic websites. All three executives provided information about the policies of each company, the cost of the cell phones provided for employees, their usage of their personal cell phone and their perceived usage of their employee’s cell phones as well.

After the executives had been interviewed, I attempted to survey approximately ten employees from each company who had a corporate paid cell phone. This was done using online survey software. The study took an estimated one minute to complete. The questions were asked in a multiple-choice and sliding scale format. The questions were as follows:

1. What type of mobile device is provided for you?
2. What type of applications do you use for work purposes on your mobile device?
3. How many hours a day do you think you use this device in the office?

4. How many hours a day do you think you use this device outside of the office?

5. What phrase most accurately describes your mobile device usage?

6. On a scale from 0 – 10, how obligated do you feel to answer a **non-time-sensitive** work email outside the office (0 being the lowest & 10 being the highest)?

7. On a scale from 0 – 10, how obligated do you feel to answer a **time-sensitive** work email outside the office (0 being the lowest & 10 being the highest)?

**Qualitative Data**

While there are many variables and avenues to follow with this research, there are three main themes that will be discussed in this paper. The subjects that have been constant throughout all of the interviews were: the cost of the cell phones and their plans, the obligation felt towards the phone in and out of the workday, and the perceived value the cell phones provide each organization. As stated previously, three executives from three different companies and organizations were interviewed. They all fell within various industries such as non-profit education, real estate, and online technologies.

The first executive interviewed was the Telecommunications Manager at the non-profit. Because the organization is so large, the manager said that it was tough and tedious to determine whom exactly needed a cell phone. About two years ago, the Information Technology department implemented an excel rubric found on their website that anyone can access. The rubric allows for a score of 0-3 for each cell. Zero represents “never, ” and three represents “Often, considered
part of the job description, once a week or more” (cell scoring sheet). The layout of cells are as follows:

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<th>Total</th>
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<th>D-On Support</th>
<th>Call</th>
<th>E-Communication</th>
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Results calculated as follows:

- Participants with a 0-3 point sum are not eligible for a phone
- Participants with a 4-5 point sum may be entitled to a flip phone
- Participants with a 6+ point sum are eligible for a phone

It is to be noted while the employee may have the right to a cell phone based on the rubric; the decision is ultimately left up to their department’s Information Technology Director.

The next question that followed was about the financial cost to the company. This organization’s phone plan contract was different than a traditional business or personal contract. They use a governmental contract, which allowed for better rates for the large amount of phones they supply, approximately 1600. This agreement allowed for pooled voice minutes and unlimited data. In previous years the organization paid about 1 million dollars in phone bills a year. The new initiative that included the cell scoring sheet as mentioned previously, reduced cell minutes from 400 to 300 per month as well as added unlimited text messaging. This new contract has reduced their annual cost by about 25 percent. In regards to the actual devices themselves, employees are allowed to bring their own device (BYOD) and attach their personal accounts, or the organization will provide the employee with a phone. The employee can then choose to transfer their personal number to the device, or they can carry two phones.
The topic of productivity in regards to the corporate ICTs was also touched on during the interview. During the workday, the interviewee said, “in the office, there isn’t too much use [of the company provided cell phone].” The employees and executives mostly used landlines and their desktop computers in the office. However, when they are out in the field they always rely on their cell phones for communication and telecommunication testing.

Using the phone outside the workday is where usage for job purposes becomes unclear. The interviewee stated that employees are “always able to be reached if necessary.” This may mean responding to a situation is urgent or just looking at emails that come in, but he may not respond. An afterhours number is forwarded to his cell phone a few times a month so if there is an emergency and he is on call, similar to a doctor, he would be able to rectify the problem. He felt that this is an “invaluable tool” and that if he didn’t have it, he would “probably get more sleep.” Overall, the executive found that having a work cell phones leads to higher efficiency in the organization, especially within the IT sector. He said it’s the “mindset of IT people.”

The second executive interviewed was a Senior Managing Director at a real estate development company in New York City. The firm implemented their corporate cell phone policy about two years ago with the help of the Chief Organizational Officer, the Director of Information Technology, the Director of Human Resources and all of the unit heads from each department of the firm.

The largest division of the company was their property management sector. In the cases of property managers, leasing agents, handy people, the client, and the building owner, the
company reimburses their cell phone bills. The company to have requires these employees smartphones due to a multitude of systems in the buildings are connected to applications. In regards to the other employees of the company, there are two options for their corporate cell phone. The first is that they can use their personal device on whatever network they choose, and can receive a 50-dollar per month stipend to cover costs. If they choose not to have their device, they will be given a company paid iPhone 6 with T-Mobile service with two to four megabytes of data per month as well. Past data from the company has shown that their monthly cell phone bill usually amounts to $25,000 but about half is reimbursed from their clients. Stipend expenses run about $5,000 a month with also about half being reimbursed by the clients.

Concerning productivity, the executive said that he carried his cell phone with him at all times – in and out of the office. He constantly looks at it to check and respond to emails but does not use it as much for its actual phone capabilities. He feels “tethered” to the device and will read emails and respond to them “24/7”. Cell phones “help keep our key employees in touch.” Additionally, he was quoted as saying, “we are 24/7 business as property managers, leasing is seven days a week”. He was also aware of exempt and nonexempt employee regulations in regards to the FLSA, or the Fair Labor Standards Act. He said that they must be careful about asking too much of non-exempt employees outside of work hours because if they do, they will be liable to pay overtime which contributes to overall higher payroll expenses.

The last executive interviewed was the Founder and Chief Executive Officer of a web service platform for college athletics in Central New York. The company was somewhat small with only 45 full-time employees. The company paid for about seven phone bills every month.
Additionally, two physical cell phones are owned by the company and given to employees when they are on-call. One phone is provided for support teams for weekly shifts. The other phone is provided to developers and software engineers when they are on call about once every few months.

Within the company, he stated that only a few employees had paid cell phones because their job description requires them to be connected or contacted outside of the traditional workday. The expectation of the company is that if they are paying for your phone, that number goes on your business card. The executive said this is made clear to all employees. In regards to connectedness, he said that he doesn’t feel that he is connected because his company is paying the bill. Constant access to the device makes him available 24/7. He believes in the “do what you have to do” mentality. Overall, the executive feels that by providing the cell phones, it is easier to contact his employees. He stated, “he doesn’t feel guilty [to contact his employees after work hours] because it is noted in the job description.”

As seen from the interviews recounted above, the executives have many thoughts and feelings about their cell phones and their company policy. Many feel “tethered” to their phones. Executives don’t turn them off too hastily in order to respond to any situation. Clearly, the introduction of the cell phone into organizations provides value as a sense of security for the company and its employees. But does this perceived value get in the way of the work-life balance leading to an extreme obsessive obligation to the organization?
Quantitative Data

To achieve a genuine sentiment of the usage of cell phones in and out of the workplace, a random pool of employees of the three companies used in this project were subjected to a seven question survey that took approximately one minute to complete. It is to be noted one outlier was removed from the data set, as they did not follow the directions of the survey.

The first question asked, “What type of mobile device is provided for you?” 27 employees responded to this question. From the results, we can see that more than three-fourths of people surveyed had an iPhone. 18% of respondents said that they had an Android. 4% answered “Other.”

What type of mobile device is provided for you?

- 78% iPhone
- 18% Android
- 4% Other
The second question asked, “What type of applications do you use for work on your mobile device?” 27 employees responded to this question. Applications that were listed in the question included an email client, phone, social media, and the calculator. There was also space for respondents to write in any other applications they use for their job. They were told to pick as many applications that applied to their specific jobs.

**What type of applications do you use for work purposes on your mobile device?**

All 27 respondents said they use an email client and their mobile device for its original intended purpose, a phone. More than half use the calculator application. About a third of respondents use a variety of social media applications as a part of their job. Many specific applications were written in the “other” section and reported used for work related purposes.
The third question on the survey asked, “How many hours a day do you think you use the device in the office?” This question provided a sliding scale from 0 to 40. This question recorded 26 responses.

The average amount of hours respondents said they use their device in the office was 2.96 hours.

The median amount of hours was two. Merriam-Webster defines the median in statistics as “
value in an ordered set of values below and above which there is an equal number of values or which is the arithmetic mean of the two middle values if there is no one middle number.” (Merriam-Webster.com) The lowest number of hours someone uses his or her device in the office is 1 hour. The survey recorded that the peak number of hours an employee uses their cell phone in the office was seven hours. The variance for this set was calculated to be 3.64 hours. The variance is defined as $s^2 = \Sigma (x_i - \bar{x})^2 / (n - 1)$. “The variance is a numerical value used to indicate how widely individuals in a group vary. If individual observations vary greatly from the group mean, the variance is big; and vice versa” (Statistics and Probability Dictionary, n.d.). The standard deviation is the square root of the variance. The standard deviation for this question calculated 1.91 hours.

The fourth question the employees answered on the survey was, “How many hours a day do you think you use the device outside the office?” This question provided a sliding scale from 0 to 40. This question had 27 responses.

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The average number of hours employees used their device out of the office was 4.81 hours. The median amount of hours recorded was 4. The minimum number of hours employees use their device outside the office was 1 hour. The maximum amount employees used their phone was 20 hours. The variance between the figures was, therefore, significant and was calculated to be 16.16. The standard deviation between percentiles on a normal curve would be 4.02 hours.

The fifth question was in a multiple-choice format with a variety of text answers. The question asked, “What most accurately describes your mobile device usage?” The choices were as follows:

- “I always keep my phone on”
• “I turn the phone off occasionally (for example at meals).”
• “I turn the phone off after work hours.”
• “I turn off the phone at any opportunity”
• “Other: ____________”

Out of the 27 responses to the question, 26 (or 96%) were “I always keep the phone on.” One person chose “Other” and said that while their phone is always on, it is not always on their person while at home.

The sixth question asked about personal obligation. The question read, “On a scale from 0-10, how obligated do you feel to answer a non-time-sensitive work email outside of the office (0 being the lowest and 10 being the highest)?” 27 people responded to this question.
The average answer from employees about responding to a non-time-sensitive work email outside the office was 6.26. The median was calculated to be 7. One respondent replied that they do not feel obligated at all to answer a non-time-sensitive work email outside of the office. The
The maximum amount of obligation felt for answering this type of email was a 10. The variance calculated for this data set was 6.43. The standard deviation computed was 2.54.

The seventh and final question of the survey inquired, “On a scale from 0-10, how obligated do you feel to answer a time sensitive work email outside of the office (0 being the lowest and 10 being the highest)?” 27 people responded to this question.
The average sentiment recorded in regards to answering a time-sensitive work email outside the office was 9.33. The median recorded was 10. The minimum sentiment felt was 2, while the maximum sentiment felt was 10. The variance in the data set was calculated to be 2.62. The standard deviation of the set was 1.62.

**Analysis**

**Qualitative Data**

There were many pertinent findings that resulted from interviewing the three executives. The two main points were the positives and negatives of the devices.

Starting with the non-profit education institution, the cell phones provided have increased productivity. According to the executive interviewed, in the office, they do not necessarily distract employees due to their use of in office equipment such as landlines and desktop computers. On the other hand, outside of the workday employees are “always able to be reached if necessary.” This may make the employees more efficient in regards completing tasks. This may be due to the “mindset of IT people.”

There were two main negative sentiments about the phones that stood out from the interview. The executive stated, “yes – if [organization name redacted] is providing you with a phone – you are obligated to check your phone all the time.” Excellent customer service is always a to establish one company from another. The cell phone is truly an “Invaluable tool – if I didn’t have
it, I’d probably get more sleep.” This ability to contact an employee 24/7 may be beneficial for the organization but not for the employee.

The overall theme regarding the interview with the real estate is executive was “keeping our key employees in touch.” As a 24/7 operation, using cell phones outside of the workday is a necessary evil. While this is a potential negative of the cell phones, employees most likely knew what their job entailed before accepting the position. Another undesirable effect from cell phones for this company is the extreme expense incurred. They have to be so careful when assigning task outside of the dedicated workday. They have many employees who are considered “non-exempt” under the FSLA. This means that anytime they may check emails or perform tasks outside of the workday would require additional pay. This may lead to assigning tasks to higher salaried employees to avoid these extra fees to the company. This then would put another burden on employees disrupting their work-life balance.

The final interview was a little bit different than the others. The executive spoke more about transparency in the workplace. When applying and accepting jobs at the company, the potential employee is informed about their cell phone policy. He said that the expectation of the company is clear. If the company is paying for your device, that number gets put on your business card. In regards to using the actual cell phones, the executive stated that it is hard not to be connected and tethered to his device but at the same time, it helps to grow his company. This executive was the only one to mention discipline in responding to messages outside of the workday.
Based on the interviews, there were many types sentiments relayed about the corporate cell phones. Mostly the sentiments about the cell phones break down into two categories: generally helpful for the companies or a potential nuisance and interloper into the employees’ work-life balance.

**Quantitative Data**

There were many interesting observations found while assessing the data from the survey. This analysis will go through each question from the survey to breakdown the results.

**Question 1 - What type of mobile device is provided for you?**

Every answer recorded said that the employees use a smartphone whether that is an iPhone or an Android.

**Question 2 - What type of applications do you use for work purposes on your mobile device?**

The most used applications recorded by the survey were the email client, social media, phone, and calculator. Three out of four of those applications are communication-based. Corporate cell phones are generally used for on the go purposes. Therefore, it makes sense that most use a variety communication tools on their phones.

**Question 3 - How many hours a day do you think you use the device in the office?**

The majority of employees, or 54%, said that they use their phones in the office for only 1-2 hours per day. This number may be low due to other technologies present in the office, such as desktop computers with larger screens and landline phones.
Question 4 - *How many hours a day do you think you use the device outside the office?*

The majority of respondents said that they use their phone for at least four hours outside the office. The average was calculated to be 4.81 hours. Therefore, the average amount of time spent per week using the phone outside the office is approximately 33.63 hours.

Question 5 - *What most accurately describes your mobile device usage?*

While 96% of respondents said that they “always keep their phone on,” 4% (one response) said, they “always keep their phone on but not always on my person when I am home.” It is interesting that this person noted that and it is possible that others do the same.

Question 6 - *On a scale from 0-10, how obligated do you feel to answer a non-time-sensitive work email outside of the office?* - *(0 being the lowest, & 10 being the highest)*

The common sense of obligation was 6.26. This finding is interesting because if this email were not time sensitive, why would you feel obligated to answer it? The feeling of obligation is higher than the neutral point of “5”. Therefore this shows that employees may feel a sense of obligation to their bosses or company no matter what the issue at hand.

Question 7 - *On a scale from 0-10, how obligated do you feel to answer a time sensitive work email outside of the office?* - *(0 being the lowest, & 10 being the highest)*

The average sense of obligation for responding to a time-sensitive email outside of the office was “9.33”. Most employees responded with “10”. These results show that employees absolutely feel a sense of obligation to their job, company, and boss when there is a time element involved.
To understand more in depth about the employee survey conducted, four main correlations were constructed using Microsoft Excel. Correlation can be defined as “a single number that describes the degree of relationship between two variables (socialresearchmethods.net).” If the value is between -1 and 0, the relationship is indirect or an inverse. If the value falls between 0 and +1, the relationship is direct.

The first correlation calculated was between the amounts of hours the device is used in the office compared to out of the office. The correlation between the two sets of data was 0.2. By squaring the correlation ($R^2$), we can find the percentage that describes how variable Y can be explained by variable X. In this case, there is a 4% variance between the data points. This would be considered a positive small to medium amount of correlation between the two data sets.

The second correlation calculated was between the senses of obligation felt when receiving a non-time-sensitive email outside the office compared to receiving a time-sensitive email outside the office.
The correlation coefficient found was 0.5. Therefore, $R^2$ is 0.25 (about 25% variance in common between the two variables). This is considered a positive medium correlation between the obligation that employees feel to answer a non-time-sensitive and time-sensitive work email outside of the office.

The third correlation computed the relationship between the number of hours an employee uses the phone outside of the office and the obligation felt answering a non-time-sensitive work email outside of the office.
The correlation computed for this data set was -0.16. A negative correlation refers to an inverse relationship. When variable x increases, variable y decreases and vice versa. $R^2$ is equivalent to 2.56%. There is only a very small correlation between the two data sets.

The fourth and final correlation computed the relationship between the number of hours an employee uses the phone outside of the office and the obligation felt answering a time-sensitive work email outside of the office.
The correlation coefficient for these data sets was -0.6. This means that there is a 36% variation in common between the two variables.

**Conclusion**

Implementing technology into the workplace is no longer a just a fad, but a way to survive in the business world. Cell phones, especially smartphones, fill the communication void found outside the office. Institutions, corporations and smaller companies often provide cell phones to their employees. Apparently, they feel that the tremendous cost will provide them a greater benefit. But, is this the case?

First, companies need to take into account the cost of the cell phones and their plans. A traditional workweek is accepted to be 40 hours a week. In our survey, we found that employees only use these dedicated an average of 2.96 hours. This means that these devices are used only 14.8 hours per workweek, Monday through Friday, in the office. This was calculated to be only 38% of the time. However, the average amount of hours the employees use their corporate paid
devices outside of the workday was 4.81 hours. This means that per week, employees are using the phone 33.67 hours outside of the office.

It may not be worth it for smaller companies to invest in such costly devices for their employees when they aren’t using them all the time in the office. But on the other hand, employees are using their cell phones for work purposes just under the amount of a traditional workweek. But, because they are working almost 80 hours a week, does this make them eligible for overtime. Is the device their compensation? A cell phone policy is, of course, up to the company to decide but executives might not have any idea that this amount of work is going on outside of the office.

Are corporate cell phones intrusive or beneficial? This can now be answered by the data collected. These cell phones provided by companies to their employees are beneficial to management but intrusive to employees. Without the paid cell phones, management would have a harder time getting in contact with their employees after work. They might feel guilty reaching them on their home phones. Since the cell phones are either paid for or owned by the company, the guilt is no longer there. On the other hand, employees lives’ are bombarded by this technology. Even on their days off, they can be answering emails, doing research, or calling clients.

According to the data, employees are using their cell phones for another 33 hours a week outside of the traditional 9-5 office hours. This clearly affects their work-life balance. There is no longer a physical barrier between the home and the office.
Overall, this study found that having a corporate cell phone affects workplace obligation. Employees and executives are answering calls and emails no matter the time of day. Without these devices, not as much work would be completed. Therefore by providing a device to employees, this heightens their obligation to their place of employment.
Works Cited

Executive Summary


Literature Review

Cousins, Karlene, Robey, Daniel, (2015),"Managing work-life boundaries with mobile technologies", Information Technology & People, Vol. 28 Iss 1 pp. 34 - 71


Introduction


Quantitative Data
Analysis


Appendix

Default Question Block

Hi, my name is Jamie Gelberg and I am in the honors program at Syracuse University. A requirement for graduation is to complete original research and write a thesis. All of my research materials have been reviewed by the Institutional Review Board of Syracuse University. If you have any questions feel free to email me at jegelber@syr.edu or the Syracuse IRB at 315-443-2492.

What type of mobile device is provided for you?
- [ ] Android
- [ ] iPhone
- [ ] Blackberry
- [ ] Other

What type of applications do you use for work purposes on your mobile device? (Click as many as apply)
- [ ] Email Client
- [ ] Social Media
- [ ] Phone
- [ ] Calculator
- [ ] Other

How many hours a day do you think you use the device in the office?

0 4 8 12 16 20 24 28 32 36 40

Hours
I always keep the phone on.
I turn the phone off occasionally (for example at meals)
I turn the phone off after work hours.
I turn the phone off at any opportunity.
Other

On a scale from 0-10, how obligated do you feel to answer a non-time-sensitive work email outside of the office?

On a scale from 0-10, how obligated do you feel to answer a time sensitive work email outside of the office?